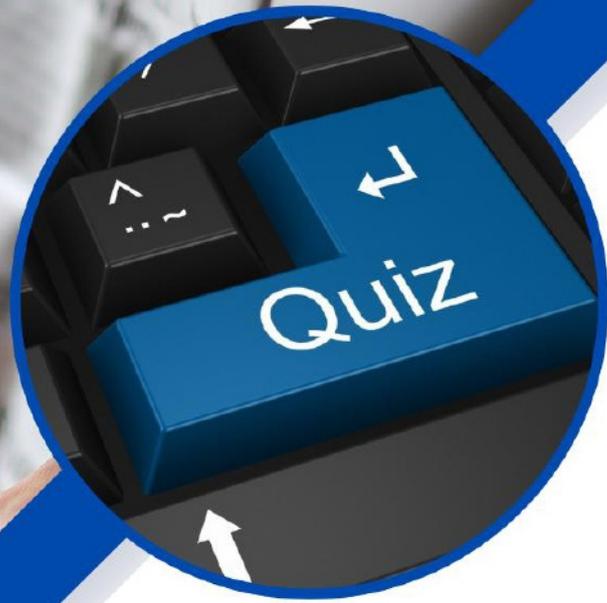




Educrat IAS
ACADEMY



CURRENT AFFAIRS QUIZ

MCQs on important
news of the day
from Hindu &
Indian Express.

OCTOBER 2021

October 1

Q.1) With reference to the Swachh Bharat Mission-Urban 2.0, consider the following statements:

1. It envisions to make all cities 'Garbage Free' and ensure grey and black water management in all cities other than those covered under AMRUT.
2. The outlay of SBM-U 2.0 is around ₹1.41 lakh crore.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Prime Minister Narendra Modi will launch Swachh Bharat Mission-Urban 2.0 on 1st October 2021, at Dr. Ambedkar International Centre, New Delhi.

SBM-U 2.0 envisions to make all cities 'Garbage Free' and ensure grey and black water management in all cities other than those covered under AMRUT, make all urban local bodies as ODF+ and those with a population of less than 1 lakh as ODF++, thereby achieving the vision of safe sanitation in urban areas.

The Mission will focus on source segregation of solid waste, utilizing the principles of 3Rs (reduce, reuse, recycle), scientific processing of all types of municipal solid waste and remediation of legacy dumpsites for effective solid waste management.

The outlay of SBM-U 2.0 is around ₹1.41 lakh crore.

Impact of SBM-U

Swachhta has become a Jan Andolan today.

All urban local bodies have been declared Open Defecation Free (ODF) and 70% solid waste is being scientifically processed now.

Hence both statements are correct.

Q.2) With reference to the AMRUT 2.0, consider the following statements:

1. It aims to provide 100% coverage of water supply to all households in around 4,700 urban local bodies by providing about 2.68 crore tap connections and 100% coverage of sewerage and septage in 500 AMRUT cities.
2. It will adopt the principles of circular economy and promote conservation and rejuvenation of surface and groundwater bodies.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Prime Minister Shri Narendra Modi will launch Atal Mission for Rejuvenation and Urban Transformation 2.0 on 1st October 2021, at Dr. Ambedkar International Centre, New Delhi.

AMRUT 2.0 aims to provide 100% coverage of water supply to all households in around 4,700 urban local bodies by providing about 2.68 crore tap connections and 100% coverage of sewerage and septage in 500 AMRUT cities by providing around 2.64 crore sewer/ septage connections, which will benefit more than 10.5 crore people in urban areas.

AMRUT 2.0 will adopt the principles of circular economy and promote conservation and rejuvenation of surface and groundwater bodies.

The Mission will promote data led governance in water management and Technology Sub-Mission to leverage latest global technologies and skills.

'Pey Jal Survekshan' will be conducted to promote progressive competition among cities.

The outlay of AMRUT 2.0 is around ₹2.87 lakh crore.

Impact of AMRUT

AMRUT has been ensuring water security by adding 1.1 crore household water tap connections and 85 lakh sewer connections, thus benefiting more than 4 crore people.

Hence both statements are correct.

Q.3) With reference to the 'Senior care Ageing Growth Engine' (SAGE) project, consider the following statements:

1. It is aimed at promoting private enterprises to bring out innovation in products to benefit the elderly.
2. The project is based on the recommendations of the Empowered Expert Committee (EEC) report on start-ups for the elderly.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: To provide 'one-stop access' to elderly care products and services, the union government has designed the 'Senior care Ageing Growth Engine' (SAGE) project.

The Ministry of Social Justice and Empowerment (MoSJE) said that the SAGE is aimed at promoting private enterprises to bring out innovation in products to benefit the elderly.

The project is based on the recommendations of the Empowered Expert Committee (EEC) report on start-ups for the elderly.

The inter-ministerial committee for the Senior Citizen Welfare Fund (SCWF) has considered funding of about Rs 100 crore as equity support to the selected start-ups with a maximum of Rs one crore per start-up.

Hence both statements are correct.

Q.4) With reference to the DigiSaksham, consider the following statements:

1. It is a joint initiative of Government of India and Google.
2. Under the DigiSaksham initiative, there will be basically three types of training viz. Digital Skills – Self paced learning, VILT mode training

(Virtual Instructor led) and ILT mode training (Instructor led).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Union Minister for Labour and Employment launched DigiSaksham - a digital skills programme to enhance the employability of youth by imparting digital skills that are required in an increasingly technology driven era.

This joint initiative with Microsoft india is an extension of the Government's ongoing programs to support the youth from rural and semi-urban areas.

Through DigiSaksham initiative, free of cost training in digital skills including basic skills as well as advance computing, will be provided to more than 3 lakh youths in the first year.

The initiative gives priority to the job-seekers of semi urban areas belonging to disadvantaged communities, including those who have lost their jobs due to Covid-19 pandemic.

Under the DigiSaksham initiative, there will be basically three types of training viz. Digital Skills – Self paced learning, VILT mode training (Virtual Instructor led) and ILT mode training (Instructor led).

The ILT training which is in person training would be conducted at the Model Career Centres (MCCs) and National Career Service Centres (NCSC) for SCs/STs across the country.

Through this initiative, nearly one crore active jobseekers registered on National Career Service (NCS) Portal will be able to access training in areas like Java Script, Data Visualisation, Advance Excel, Power Bi, HTML, Programming languages etc, equipping them with the skills required in a digital economy.

DigiSaksham will be implemented in the field by Aga Khan Rural Support Programme India (AKRSP-I).

The DigiSaksham initiative will equip more than 300,000 youth in technical skills in the first year.

NCS Portal

The Jobseekers can access the training through National Career Service (NCS) Portal.

The Ministry of Labour and Employment is implementing the National Career Service (NCS) Project as a Mission Mode Project for transformation of the National Employment Service to provide a variety of employment related services like job matching, career counselling, vocational guidance, information on skill development courses, apprenticeship, internships etc.

Hence only statement 2 is correct

Q.5) “Data Governance Quality Index” is released by-

- a) World Economic Forum
- b) NITI Aayog**
- c) United Nations
- d) World Bank

Explanation: Recently, the Department of Fertilizers (Ministry of Chemicals and Fertilizers) has been ranked 3rd out of the 65 Ministries/Departments with a score of 4.11 on a scale of 5 on Data Governance Quality Index (DGQI).

It has been ranked 2nd amongst the 16 Economic Ministries/Departments.

DGQI survey was conducted by the Development Monitoring and Evaluation Office (DMEO), NITI Aayog to assess different Ministries/Departments’ performance on the implementation of Central Sector Schemes (CS) and Centrally Sponsored Schemes (CSS).

Q.6) With reference to the Build Back Better World initiative, consider the following statements:

1. It is an initiative of G20 group of nations.

2. It is seen as an initiative to counter China’s Belt and Road Initiative.

3. It aims to address the infrastructure investment deficit in developing and lower-income countries.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only**
- c) 1, 2 and 3
- d) None of the above

Explanation: Build Back Better World or B3W is an initiative undertaken by G7 countries. Launched in June 2021, the initiative is designed to counter China’s strategic influence of the BRI Project (Belt and Road Initiative) by providing an alternative to the Belt and Road Initiative for the infrastructure development of the low and middle income countries.

Led by the United States, the G7 countries will work to address the \$40 trillion worth of infrastructure needed by developing countries by 2035. The initiative aims to catalyze funding for quality infrastructure from the private sector and will encourage private-sector investments that support “climate, health and health security, digital technology, and gender equity and equality”.

The initiative builds on the Blue Dot Network, a collaboration that aims to build a global network through lending-based financing to build roads, bridges, airports, ports, power plants.

Q.7) Green Voyage 2050 project is an initiative of:

- a) International Maritime Organisation**
- b) United Nations Environment Programme
- c) Regional Comprehensive Economic Partnership
- d) World Trade Organisation

Explanation: The GreenVoyage2050 Project is a partnership project between the Government of Norway and IMO launched in May 2019 aiming to transform the shipping industry towards a lower carbon future.

The global partnership is supporting developing countries, including Small Islands Developing States (SIDS) and Least Developed Countries (LDCs), in meeting their commitment towards relevant climate change and energy efficiency goals, for international shipping, through supporting the Initial IMO GHG Strategy.

Q.8) Financial Inclusion Index, is released by which of the following organization?

- a) Ministry of Finance
- b) Organization of Economic Corporation and Development (OECD)
- c) World Bank
- d) Reserve Bank of India**

Explanation: Statement d is correct: Reserve Bank of India (RBI) has unveiled the first composite Financial Inclusion Index (FI-Index). The index has been conceptualized as a comprehensive index incorporating details of banking, investments, insurance, postal as well as the pension sector in consultation with the government and respective sectoral regulators. It will be published annually in July every year.

Q.9) TKS Nair Committee, Raman Puri Committee, seen in news, is related to which of the following:

- a) Agricultural Reforms
- b) Police Reforms
- c) Defence Reforms**
- d) Economy reforms

Explanation: Statement C is correct: Various committees in the past were constituted for the purpose of defence reforms. Corporatization of OFB was recommended by TKS Nair Committee (2000), Vijay Kelkar Committee (2005), and Vice Admiral Raman Puri Committee (2015). There is another committee under setup under Lt Gen D B Shekatkar, which did not suggest corporatization. It recommended regular audits of all ordnance units considering past performance.

Q.10) With reference to Landsat-9, consider the following statements:

- 1. It is a joint mission by NASA and ISRO.
- 2. It will help identify water bodies affected by potentially harmful algal blooms.

Which of the statements given above is/are incorrect?

- a) 1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is incorrect: The earth monitoring satellite, Landsat 9, is a joint mission of NASA and the US Geological Survey (USGS).

Statement 2 is correct: If a forest is affected by drought, it will be seen in Landsat images and can help the researchers decode the areas at risk. Similarly during a wildfire, the Landsat images will capture the plumes of smoke and help study the extent of a burning. The satellite images can also help recovery experts plan sites for replanting. Landsat images can also help identify water bodies affected by potentially harmful algal blooms. According to NASA, scientists are now developing computer programs that would use Landsat and other satellite data to automatically warn lake recreation managers when blooms pop up.

October 2

Q.1) With reference to the Jal Jeevan Mission, consider the following statements:

1. It aims to provide clean tap water to every household.
2. It is implemented in partnership with States with a budget of Rs. 3.60 lakh Crores.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Prime Minister Narendra Modi will interact with Gram Panchayats and Pani Samitis/ Village Water and Sanitation Committees (VWSC) on Jal Jeevan Mission on 2nd October, 2021.

Prime Minister will launch the Jal Jeevan Mission App for improving awareness among stakeholders and for greater transparency and accountability of schemes under the Mission.

Prime Minister will also launch Rashtriya Jal Jeevan Kosh, where any individual, institution, corporate, or philanthropist, be it in India or abroad, can contribute to help provide tap water connection in every rural household, school, anganwadi centre, ashramshala, and other public institutions.

About Pani Samitis/VWSC

Pani Samitis play a key role in planning, implementation, management, operation and maintenance of village water supply systems, thereby providing clean tap water to every household on a regular and long-term basis.

Out of over 6 lakh villages, Pani Samitis/ VWSCs have been constituted in around 3.5 lakh villages. More than 7.1 lakh women have been trained to test the quality of water by using Field Test Kits.

About Jal Jeevan Mission

On 15th August, 2019, Prime Minister announced the Jal Jeevan Mission to provide clean tap water to every household. At the time of launch of the

mission, only 3.23 Crore (17%) rural households had tap water supply.

As of October 2, 2021, about 8.26 Crore (43%) rural households have tap water supply in their homes. Every rural household in 78 districts, 58 thousand Gram Panchayats and 1.16 lakh villages are getting tap water supply. Till now, tap water supply has been provided in 7.72 lakh (76%) schools and 7.48 lakh (67.5%) anganwadi centres.

Following 'bottom up' approach, Jal Jeevan Mission is implemented in partnership with States with a budget of Rs. 3.60 lakh Crores.

Further, Rs. 1.42 lakh Crore has been allocated to PRIs as a tied grant under 15th Finance Commission for water and sanitation in villages for the period 2021-22 to 2025-26.

Hence both statements are correct.

Q.2) With reference to a recent study on Type 1 diabetics (T1D), consider the following statements:

1. Individuals with T1D have increased morbidity and excess premature mortality compared to those without diabetes and their life expectancy is reduced by an estimated 15-20 years, even with the life-saving insulin to their assistance.
2. India is home to more than 95,000 children with T1D, reported to be the highest in the world, according to the 9th International Diabetes Federation Atlas.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Good control of not only blood sugar but also blood pressure and cholesterol is essential for survival and a good quality of life among Type 1 diabetics (T1D), according to a pan-India study of long-term survivors with the condition.

A first-of-its kind report of long-term survivors of T1D from India, a multi-centric study was

published in the peer-reviewed journal Diabetes Technology and Therapeutics.

Comparing survivors for over 40 years with people who did not survive up to 40 years, the researchers found that “survivors had better glycemic and blood pressure control, more favourable lipid profiles and lower prevalence of complications compared to non-survivors”.

Individuals with T1D have increased morbidity and excess premature mortality compared to those without diabetes and their life expectancy is reduced by an estimated 15-20 years, even with the life-saving insulin to their assistance. However, long-term survival with T1D is possible

India is home to more than 95,000 children with T1D, reported to be the highest in the world, according to the 9th International Diabetes Federation Atlas.

Hence both statements are correct.

Q.3) Industrial Security Agreement (ISA), recently seen in news, was signed between India and:

- a) United States of India
- b) France
- c) Germany
- d) Spain

Explanation: The Industrial Security Agreement (ISA) summit between India and the United States was held between September 27 to October 01, 2021 at New Delhi.

The summit was organised to develop protocol for the exchange of classified information between the defence industries of both the nations.

The ISA was signed in December 2019 to facilitate the exchange of classified information between the defence industries of both the countries. It was held to create a roadmap for the implementation of the ISA.

During the summit, both the sides agreed in-principle to establish the Indo-US Industrial Security Joint Working Group.

This group will meet periodically to align the policies and procedures expeditiously that will allow the defence industries to collaborate on cutting edge defence technologies.

Hence, option (a) is the correct answer.

Q.4) With reference to the ‘State Nutrition Profiles’ (SNPs), consider the following statements:

1. It give insights on nutrition outcomes, immediate and underlying determinants and interventions based on NFHS-rounds 3, 4 and 5.
2. It is an initiative of Akshaya Patra Foundation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: NITI Aayog, in a joint effort with International Food Policy Research Institute (IFPRI), Indian Institute of Population Sciences (IIPS), UNICEF and Institute of Economic Growth (IEG) launched ‘The State Nutrition Profiles’ for 19 States and Union Territories.

The ‘State Nutrition Profiles’ (SNPs) give insights on nutrition outcomes, immediate and underlying determinants and interventions based on NFHS-rounds 3, 4 and 5.

The SNPs include a comprehensive compilation of crucial data that can positively affect policy decisions and facilitate research in the area.

Hence only statement 1 is correct.

Q.5) With reference to the PM POSHAN scheme, launched recently, consider the following statements:

1. It is a centrally sponsored scheme.
2. It aims to reduce under-nutrition and anaemia among pregnant and lactating women.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: PM-POSHAN scheme:

The scheme will replace the existing national programme for mid-day meal in schools or Mid-day Meal Scheme.

It has been launched for an initial period of five years (2021-22 to 2025-26).

The scheme is proposed to be extended to students studying in pre-primary or Bal Vatikas of Government and Government-aided primary schools in addition to all the 11.80 crore children from elementary classes.

The concept of TithiBhojan will be encouraged extensively. TithiBhojan is a community participation programme in which people provide special food to children on special occasions/festivals.

Social Audit of the scheme is made mandatory in all the districts.

Special provision is made for providing supplementary nutrition items to children in aspirational districts and districts with high prevalence of Anemia.

Cooking competitions will be encouraged at all levels right from village level to national level to promote ethnic cuisine and innovative menus based on locally available ingredients and vegetables.

Vocal for Local for Atmanirbhar Bharat: Involvement of Farmers Producer Organizations (FPO) and Women Self Help Groups in implementation of the scheme will be encouraged. Use of locally grown traditional food items for a fillip to local economic growth will be encouraged.

Field visits for progress monitoring and inspections will be facilitated for students of eminent Universities / Institutions and also trainee teachers of Regional Institutes of Educations

(RIE) and District Institutes of Education and Training (DIET).

Q.6) With reference to the Emergency Credit Line Guarantee Scheme (ECLGS), consider the following statements:

1. It aims to revive MSME sector impacted by COVID-19.
2. Interest free and collateral free loan is provided under the scheme.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Emergency Credit Line Guarantee Scheme (ECLGS):

The scheme was launched as part of the Aatmanirbhar Bharat Abhiyan package announced in May 2020 to mitigate the distress caused by coronavirus-induced lockdown, by providing credit to different sectors, especially Micro, Small and Medium Enterprises (MSMEs).

The objective of this scheme is to provide fully guaranteed and collateral free additional credit to MSMEs, business enterprises, MUDRA borrowers and individual loans for business purposes to the extent of 20% of their credit outstanding.

Interest rates under the Scheme are capped at 9.25% for Banks and Financial Institutions (FIs), and 14% for NBFCs.

100% guarantee coverage is being provided by the National Credit Guarantee Trustee Company, whereas Banks and Non Banking Financial Companies (NBFCs) provide loans

Tenor of loans provided under the Scheme is four years, including a moratorium of one year on principal repayment.

Q.7) Tropical cyclone “Gulab”, recently made landfall on the eastern coast of India, is named by:

- a) Bangladesh
- b) Myanmar
- c) India
- d) **Pakistan**

Explanation: Cyclone Gulab recently made landfall on India’s east coast. Gulab was a tropical cyclone and was named by Pakistan.

The cyclone affected the coasts of south Odisha north Andhra Pradesh. It made landfall triggering heavy rains along with strong winds over north coastal Andhra Pradesh and adjoining south coastal Odisha. It comes under the category of the cyclonic storm according to IMD.

Q.8) C.K. Mishra committee was recently seen in news. The committee is related to which of the following domains?

- a) Digital currency.
- b) E-commerce regulations.
- c) **Sustainable Finance.**
- d) Mobile Banking.

Explanation: Recently, International Financial Services Centres Authority (IFSCA) has constituted an Expert Committee to recommend approach towards development of Sustainable Finance Hub and provide road map for the same. The expert committee is being chaired by Shri C.K. Mishra. The committee consists of leaders across the sustainable finance spectrum, including international agencies, standard setting bodies, funds, academia, and consultancies.

Q.9) With reference to Mahatma Gandhi, consider the following statement:

1. The International Day of Non-Violence is observed on 15th January, to mark the return of Mahatma Gandhi from South Africa.
2. Mahatma Gandhi's first Satyagraha in India was in Kheda in the year 1917.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) **Neither 1 nor 2**

Explanation: Statement 1 is incorrect: The International Day of Non-Violence is observed on 2nd October, on the birthday of Mahatma Gandhi. Statement 2 is incorrect: In 1916 he travelled to Champaran in Bihar to inspire the peasants to struggle against the oppressive plantation system.

Q.10) Denarau action plan, sometimes seen in news is related to which of the following?

- a) **women’s access to quality and affordable financial services**
- b) Addressing climate change in the post-pandemic world
- c) Ushering gender equality in workplaces
- d) Building a sustainable and resilient urban infrastructure

Explanation: AFI members committed to the Denarau Action Plan (DAP) to increase women’s access to quality and affordable financial services globally — bridging the financial inclusion gender gap.

The Denarau Action Plan targets to accelerate the progress of women’s financial inclusion by halving the financial inclusion gender gap across AFI member jurisdictions by 2021.

Alliance for Financial Inclusion (AFI)

AFI is the world’s leading organization on financial inclusion policy & regulation. A member – owned network, it promotes and develops evidence – based policy solutions that improve lives of the poor through the power of financial inclusion

October 4

Q.1) With reference to the offshore trusts, consider the following statements:

1. The Indian Trusts Act, 1882, gives legal basis to the concept of trusts.
2. India does not recognise offshore trusts.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: There are at least 380 persons of Indian nationality in the Pandora Papers.

The Pandora Papers investigation is the world's largest-ever journalistic collaboration, involving more than 600 journalists from 150 media outlets in 117 countries.

The investigation is based on a leak of confidential records of 14 offshore service providers that give professional services to wealthy individuals and corporations seeking to incorporate shell companies, trusts, foundations and other entities in low- or no-tax jurisdictions.

The entities enable owners to conceal their identities from the public and sometimes from regulators. Often, the providers help them open bank accounts in countries with light financial regulation.

How is Pandora different from the Panama Papers and Paradise Papers?

The Panama and Paradise Papers dealt largely with offshore entities set up by individuals and corporates respectively.

The Pandora Papers investigation shows how businesses have created a new normal after countries have been forced to tighten the screws on such offshore entities with rising concerns of money laundering, terrorism funding, and tax evasion.

Is setting up a trust in India, or one offshore/ outside the country, illegal?

No. The Indian Trusts Act, 1882, gives legal basis to the concept of trusts.

While Indian laws do not see trusts as a legal person/ entity, they do recognise the trust as an obligation of the trustee to manage and use the assets settled in the trust for the benefit of 'beneficiaries'. India also recognises offshore trusts i.e., trusts set up in other tax jurisdictions.

Hence only statement 1 is correct.

Q.2) Consider the following statements:

1. The Polavaram Project is constructed on the River Krishna.
2. This National project is constructed by the Andhra Pradesh State.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 & 2 only
- d) None of the above

Explanation: Statement 1 is Incorrect & 2 is correct:

The Polavaram Project is an under-construction multi-purpose irrigation project on the Godavari River in the West Godavari District and East Godavari District in Andhra Pradesh.

The project has been accorded national project status by the Union Government of India in 2014.

Q.3) Consider the following:

- 1) Telia Rumal: Telangana
- 2) Dindigul lock: Kerala
- 3) Judima Wine: Assam

Which of the statements given above are correct?

- a) 1 & 2 only
- b) 2 & 3 only

c) 1 & 3 only

d) All the above

Explanation: Puttapaka in Nalgonda of Telangana is now on the global map as the center for a handloom technique known as Puttapaka Teliya Rumal. It secured the coveted Geographical Indication tag recently.

Tamil Nadu's Dindigul locks are known throughout the world for their superior quality and durability, so much so that even the city is called Lock City. Government institutions such as prisons, godowns, hospitals, and even temples use these locks instead of other machine-made ones.

Dindigul lock has been given the Geographical Indication (GI) tag by The Geographical Indications Registry in Chennai.

Judima, a homemade rice wine of Assam's Dimasa tribe has become the first traditional brew in all of the northeast to bag a geographical indication (GI) tag.

Q.4) SACRED Portal, launched recently, is an online employment exchange platform for:

a) Women

b) Rural youth

c) Elderly

d) Tribals

Explanation: Senior Able Citizens for Re-Employment in Dignity (SACRED):

The portal is developed by the Ministry of Social Justice and Empowerment.

Citizens above 60 years of age can register on the portal and find jobs and work opportunities.

The Employment Portal will serve not only the senior citizens seeking employment, but also the employers, the Self Help Groups (SHGs), the senior citizens gaining skills, and other agencies or individuals.

More than 50% senior citizens are found active as per the LASI report 2020. Many senior citizens having experience, time and energy can be used by the business enterprises looking for stable employees with experience.

Q.5) With reference to the Least Developed Countries (LDCs) Report 2021, consider the following statements:

1. It is released by UNESCO.

2. The report designates 46 countries as LDCs.

3. GDP per capita for the LDC countries represents less than 10 per cent of the world average.

Which of the above statements is/are correct?

a) 1 and 2 only

b) 2 and 3 only

c) 1 and 3 only

d) 1, 2 and 3

Explanation: Least Developed Countries (LDCs) Report 2021 is released recently by the United Nations Conference on Trade and Development (UNCTAD).

The report called for increased investment in state and productive capabilities for the LDC group.

UNCTAD defines productive capacities as the productive resources, entrepreneurial capabilities and production links that together determine a country's capacity to produce goods and services and enable it to grow and develop.

The UN established the LDC category 50 years ago. The grouping of the world's weakest economies has expanded from an initial 25 countries in 1971, peaking at 52 in 1991, with only six countries progressing enough to no longer be considered an LDC. These six countries are: Botswana, Cabo Verde, Equatorial Guinea, Maldives, Samoa and Vanuatu.

The number of LDC since January 2021 has been 46 (including 34 African countries). LDCs experienced more frequent instances of growth collapses than other groups of countries, the report flagged.

The gross domestic product (GDP) per capita for the LDC group represented less than 10 per cent of the world average in 2019, according to the report. This was even lower than in 1971, when their GDP per capita amounted to 15 per cent.

Only seven LDCs (Bangladesh, Bhutan, Cambodia, Laos, Lesotho, Mali, and Myanmar) have consistently outpaced the world average GDP per capita growth by more than 1 per cent and therefore have converged towards the standards of living of higher-income countries.

Q.6) “Aipan” which recently received GI tag is a traditional art belonging to:

- a) Assam
- b) Uttarakhand**
- c) Arunachal Pradesh
- d) Gujarat

Explanation: Aipan art is an established-ritualistic folk art originating from Kumaon in Uttarakhand.

The art is done mainly during special occasions, household ceremonies and rituals. Practitioners believe that it invokes a divine power which brings about good fortune and deters evil.

The actual art is done with a white paste made of rice flour. The art is frequent to floors and walls of Puja rooms and entrances of homes. It is also practiced mostly by Kumaoni women.

Q.7) Uronema africanum Borge, recently seen in news, is:

- a) An alga that can digest low density plastic sheets.**
- b) An oil eating bacteria.
- c) A soil fungus, which uses enzymes to rapidly break down plastic materials.
- d) A bacterium that can aid the production of bioplastics.

Explanation: Researchers from University of Madras and Presidency College, Chennai, have isolated an alga that breaks down low density polyethylene. The alga identified is microalga Uronema africanum Borge. This is a species of microalgae that is commonly found in Africa, Asia and Europe.

The alga used for the study has been harvested from a lake in Chennai.

The microalga was found to produce enzymes, hormones, toxins such as cyanotoxins and some polysaccharides which were able to slowly degrade polyethylene into monomers which will not have harmful effect in the atmosphere.

Low-density polyethylene is highly resistant to degradation.

Q.8) In which of the following states can Gangetic River dolphins be found?

1. Assam
2. Uttar Pradesh
3. Rajasthan
4. Jharkhand
5. West Bengal

Options:

- a) 2, 4 and 5 only
- b) 1, 2 and 4 only
- c) 4 and 5 only
- d) 1, 2, 3, 4 and 5**

Explanation: Ganges River dolphins once lived in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh. But the species has been declining from most of its early distribution ranges.

Ganges river dolphins prefer deep waters, in and around the confluence of rivers. The distribution range of the Ganges River dolphins in India covers seven states namely, Assam, Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand and West Bengal.

Q.9) Consider the following statements with respect to “Langa & Manganiar”:

1. They are folk artists, famous for their folk dance called “Kalbeliya”.
2. They are Muslim communities predominantly residing in Ladakh.
3. They play a traditional percussion instrument called “Khartal”.

Which of the given statement/s is/are correct?

- a) 1 and 3 only
- b) 2 only
- c) 3 only
- d) 1, 2 and 3

Explanation: The Langas and Manganiyars are communities of Muslim folk musicians residing mostly in western Rajasthan’s Jaisalmer and Barmer districts.

The folk art practiced by these two communities includes ballads, folklore and songs.

The major theme includes heroic ballads, romantic epic tales and the Sufi spiritual stories.

The performances are in multiple languages and dialects including Marwari, Sindhi, Saraiki, Dhatti and Thareli.

They play a traditional percussion instrument called “Khartal”.

Q.10) Which of the following statements about Type 1 and Type 2 diabetes is/are correct?

1. There are no known prevention methods for Type 1 diabetes, while a healthy lifestyle can prevent Type 2 diabetes.
2. In Type 1 diabetes the body is producing insulin but not enough of it or it does not use it efficiently, whereas in Type 2 it is no longer able to produce insulin.

Options:

- a) 1 only
- b) 2 only
- c) Both

d) None

Explanation: There are no known prevention methods for Type 1 diabetes, while a healthy lifestyle can prevent Type 2 diabetes.

Type 1 diabetes used to be called juvenile-onset diabetes. It is usually caused by an auto-immune reaction where the body’s defence system attacks the cells that produce insulin.

People with type 1 diabetes produce very little or no insulin.

People with this form of diabetes need injections of insulin every day in order to control the levels of glucose in their blood.

Type 2 diabetes used to be called non-insulin dependent diabetes.

It is characterised by insulin resistance and relative insulin deficiency, either or both of which may be present at the time diabetes is diagnosed.

October 5

Q.1) Consider the following statements:

1. Artemis Program is led by the US for Solar exploration
2. One of its aims is to send 1st woman astronaut to the moon by 2024.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 & 2 only
- d) None of the above

Explanation: Statement 1 is Incorrect & 2 is correct:

The Artemis Program is a United States-led international human spaceflight program. Its primary goal is to return humans to the Moon, specifically the lunar south pole, by 2024. If successful, it will include the first crewed lunar landing mission since Apollo 17 in 1972, the last lunar flight of the Apollo program.

NASA will put the first woman and person of color on the Moon during Artemis. This program is aptly named after the Greek Goddess Artemis, the twin sister of Apollo.

Artemis is the Goddess of the Moon, archery, and more

Q.2) With reference to the drone, consider the following statements:

1. i-Drone is an initiative of DRDO.
2. Currently, the drone-based delivery project has been granted permission for implementation in Manipur and Nagaland, as well as the Andaman and Nicobar Islands.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Union Health Minister launched the ICMR's drone response and outreach in the north-east (i-Drone). The delivery model is aimed at ensuring that life-saving vaccines reach everyone.

This is for the first time that a 'Make in India' drone has been used in South Asia to transport COVID vaccine over an aerial distance of 15 km in 12-15 minutes from the Bishnupur district hospital to Loktak lake, Karang island in Manipur for administration at the primary health centre.

The actual road distance between these locations is 26 km.

India is home to geographical diversities and drones can be used to deliver essentials to the last mile. This would facilitate vaccine delivery to tough and hard-to-reach terrains.

Currently, the drone-based delivery project has been granted permission for implementation in Manipur and Nagaland, as well as the Andaman and Nicobar Islands.

The ICMR conducted an initial study in collaboration with the IIT Kanpur to test the capacity of the drones to carry and transfer vaccines safely.

These studies provided promising results on the basis of which the Ministry of Civil Aviation, the Directorate General of Civil Aviation and other regulatory authorities have granted permission to fly drones beyond the visual line of sight.

Hence only statement 2 is correct.

Q.3) With reference to the Tax Inspectors Without Borders (TIWB), consider the following statements:

1. It is an initiative of World Economic Forum.
2. India was chosen as the Partner Administration and has provided Tax Expert for the programme recently launched by Tax Inspectors Without Borders.

Which of the statements given above is/are correct?

- a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Tax Inspectors Without Borders (TIWB), a joint initiative of the United Nations Development Programme (UNDP) and the Organisation for Economic Cooperation and Development (OECD), launched its programme in Seychelles on 4th October, 2021.

India was chosen as the Partner Administration and has provided Tax Expert for this programme.

This programme is expected to be of 12 months duration during which India, in collaboration with the TIWB Secretariat and support of the UNDP Country Office in Mauritius and Seychelles, aims to aid Seychelles in strengthening its tax administration by transferring technical know-how and skills to its tax auditors through sharing of best audit practices.

The focus of the programme will be on Transfer Pricing cases of tourism and financial services sectors.

This programme is the sixth TIWB programme which India has supported by providing Tax Expert.

Hence only statement 2 is correct.

Q.4) Which of the following products/systems indigenously developed by DRDO?

1. ARINC818 Video Processing and Switching Module

2. Sonar Performance Modelling System

3. Bund Blasting Device Mk-II

Select the correct answer using the code given below:

a) 1 only

b) 1 and 2 only

c) 2 and 3 only

d) 1, 2 and 3

Explanation: Raksha Mantri Rajnath Singh handed over to the Armed Forces three products/systems indigenously developed by DRDO.

ARINC818 Video Processing and Switching Module: The module, developed for the Indian Air Force is a state-of-the-art module with high bandwidth, low latency, channel bonding, easy networking and will cater to 5th generation aircraft development programmes.

Sonar Performance Modelling System: Developed for the Indian Navy, it is useful for Indian Naval ships, submarines and under water surveillance stations etc.

Bund Blasting Device Mk-II: The device, developed for Indian Army, is used to reduce the height of Ditch-cum-Bund obstacles to enhance the mobility of mechanised infantry during wartime.

Hence, option (d) is the correct answer.

Q.5) With reference to Foreign Contribution (Regulation) Act (FCRA), consider the following statements:

1. It is implemented by the Ministry of Finance.

2. The Act makes Aadhaar number mandatory for all office bearers, directors or key functionaries of a person receiving foreign contribution, as an identification document.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Foreign Contribution (Regulation) Act (FCRA):

Foreign funding of persons in India is regulated under FCRA Act and is implemented by the Ministry of Home Affairs.

The Act ensures that the recipients of foreign contributions adhere to the stated purpose for which such contribution has been obtained.

Under the Act, organisations are required to register/renew themselves every five years.

The Act bars public servants from receiving foreign contributions.

The Act prohibits the transfer of foreign contribution to any other person not registered to accept foreign contributions.

The Act makes Aadhaar number mandatory for all office bearers, directors or key functionaries of a person receiving foreign contribution, as an identification document.

Foreign contribution must be received only in an account designated by the bank as FCRA account in such branches of the State Bank of India, New Delhi.

Q.6) Nordstream 2 runs across which of the following seas?

- a) Adriatic
- b) Baltic**
- c) Aral
- d) Black

Explanation: It is a new export gas pipeline running from Russia to Europe across the Baltic Sea

Q.7) Kármán line sometimes seen in news is associated with?

- a) Space**
- b) Dark net
- c) Artificial Intelligence
- d) Deep seabed

Explanation: Karman line is the internationally recognized boundary of space which lies around 100 kilometres above mean sea level.

Q.8) Which institution publishes the Global Financial Stability Report semi-annually?

- a) World Bank
- b) IMF**
- c) ADB
- d) New Development Bank

Explanation: The Global Financial Stability Report is a semi-annual publication by the International Monetary Fund, which gives detailed review on the stability of global financial markets.

In the recent Global Financial Stability Report, the IMF has dedicated an exclusive chapter to cryptocurrency. Under it, IMF mentions that rapid growth of the crypto ecosystem presents new opportunities at the same time, it has cautioned about the financial stability challenges.

Q.9) Who among the following have won the 2021 Nobel Prize for Physiology or Medicine?

- a) David Julius and Ardem Patapoutian**
- b) Abiy Ahmed and M. Stanley Whittingham
- c) Peter J. Ratcliffe
- d) Michael Kremer

Explanation: American scientists David Julius and Ardem Patapoutian have won the 2021 Nobel Prize for Physiology or Medicine for their discoveries of receptors for temperature and touch.

David Julius

Dr. Julius has been studying the different compounds in chili peppers and spider venom to understand how our bodies sense heat and chemical irritants. Decoding the neuroscience of pain can help develop new targets for pain therapy.

In 1997, Dr. Julius and his team published a paper in Nature detailing how capsaicin, or the chemical compound in chilli peppers, causes the burning sensation.

They created a library of DNA fragments to understand the corresponding genes and finally discovered a new capsaicin receptor and named it TRPV1. This discovery paved the way for the identification of many other temperature-sensing receptors.

Ardem Patapoutian

Dr. Patapoutian helped discover a novel class of sensors in our skin and internal organs that respond to cold and other mechanical stimuli.

Independently of one another, both David Julius and Ardem Patapoutian identified another new receptor called TRPM8, a receptor that is activated by cold. A paper published in Cell in 2002 by Dr. Patapoutian and team explains that this new receptor is specifically expressed in a subset of pain-and-temperature-sensing neurons.

Ardem Patapoutian and his team identified a single gene, which when silenced made the cells insensitive to the poking. They named this new mechanosensitive ion channel Piezo1.

Hence, option (a) is the correct answer.

Q.10) Exercise Mitra Shakti, which aims to promote close relations between armies of India and which of the following countries?

a) Russia

b) France

c) Sri Lanka

d) Qatar

Explanation: The 8th Edition of India Sri Lanka bilateral joint Exercise Mitra Shakti will be conducted at Combat Training School, Ampara in Sri Lanka from 4 to 15 October 2021.

An all arms contingent of 120 personnel of the Indian Army will participate in the exercise along with a battalion of the Sri Lankan Army. The aim of the exercise is to promote close relations between Armies of both countries and enhance inter-operability and sharing best practices in counter insurgency and counter terrorism operations. The 7th Edition of Exercise Mitra Shakti was conducted at Foreign Training Node (FTN), Pune, Maharashtra (India) in 2019. Hence option (c) is correct.

October 6

Q.1) With reference to the State of the World's Children 2021, consider the following statements:

1. The report has found that around 14 percent of 15 to 24-year-olds in India, or 1 in 7, reported often feeling depressed or having little interest in doing things.
2. As per the report, India was the only one of 21 countries where only a minority of young people felt that people experiencing mental health issues should reach out to others.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Shri Mansukh Mandaviya, Union Minister for Health and Family Welfare released UNICEF's global flagship publication – "The State of the World's Children 2021; On My Mind: promoting, protecting and caring for children's mental health".

The report details the significant impact of COVID-19 pandemic on children's mental health.

The report has found that around 14 percent of 15 to 24-year-olds in India, or 1 in 7, reported often feeling depressed or having little interest in doing things. Across 21 countries, the median was one in five young people.

In the UNICEF survey across 21 countries, only 41 per cent of young people in India were willing to seek support for mental health problems, compared to an average of 83 per cent for 21 countries.

As per the report, India was the only one of 21 countries where only a minority of young people felt that people experiencing mental health issues should reach out to others. In every other country, a majority of young people (ranging from 56 to 95 per cent) felt that reaching out was the best way to deal with mental health issues.

Over 286 million children up to grade 6 were out of school in India between 2020-2021. UNICEF's rapid assessment in 2021 found that only 60 per cent could access digital classrooms. Many would not be able to continue their education.

Meanwhile, wide gaps persist between mental health needs and mental health funding. India has spent only 0.05 per cent of its health budget annually on mental health, according to Indian Journal of Psychiatry 2017.

As the trend of nuclear family instead of joint family has increased in our society, mental health problems have become frequent in children.

Hence both statements are correct.

Q.2) JIMEX series of exercises is between Indian Navy and:

- a) Japan Maritime Bilateral Exercise**
- b) Royal Navy (RN) of U.K
- c) United States Navy (USN)
- d) None of the above

Explanation: The fifth edition of India – Japan Maritime Bilateral Exercise, JIMEX, between the Indian Navy (IN) and the Japan Maritime Self-Defence Force (JMSDF), will be held in Arabian Sea from 06 to 08 October 2021.

JIMEX series of exercises commenced in January 2012 with special focus on maritime security cooperation. The last edition of JIMEX was conducted in September 2020.

JIMEX-21 aims to develop common understanding of operational procedures and enhance interoperability through conduct of a multitude of advanced exercises, across the entire spectrum of maritime operations.

Multi-faceted tactical exercises involving weapon firings, cross-deck helicopter operations and complex surface, anti-submarine and air warfare drills will consolidate coordination developed by the two navies.

Hence, option (a) is the correct answer.

Q.3) Which of the following products received Geographical Indication (GI) tag?

1. Mihidana
2. Alibag's white onion
3. Jaynagar Moa

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only

d) 1, 2 and 3

Explanation: First consignment of Geographical Identification (GI) tagged sweet dish Mihidana sourced from Bardhaman, West Bengal has been exported to the Kingdom of Bahrain.

Recently, to commemorate the historical legacy of a century old sweet delicacy & GI certified - Jaynagarer Moa, prepared from popped-rice ball & fresh date-palm jaggery, in Jaynagar, West Bengal, India Post in collaboration with APEDA released a specially designed envelope.

In January, 2021, a consignment of Jaynagar Moa was exported to the Kingdom of Bahrain.

In August, 2021, India Post released a special cover on West Bengal's sweetmeats Mihidana and Sitabhog.

West Bengal's Bardhaman got the GI tag for the century-old sweetmeats in 2017.

Recently white onion of Alibag in Maharashtra's Raigad district has received 'Geographical Indication.

Hence, option (d) is the correct answer.

Q.4) With reference to the Nobel Physics Prize 2021, consider the following statements:

1. U.S.-Japanese scientist Syukuro Manabe, Klaus Hasselmann of Germany and Giorgio Parisi of Italy won the Nobel Physics Prize for climate models and the understanding of physical systems.
2. This is the third time climate scientists have been awarded the Physics Nobel.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: U.S.-Japanese scientist Syukuro Manabe, Klaus Hasselmann of Germany and Giorgio Parisi of Italy won the Nobel Physics Prize for climate models and the understanding of physical systems.

Dr. Manabe, 90, and Dr. Hasselmann, 89, share one half of the 10 million kronor (\$1.1 million) prize for their research on climate models, while Dr. Parisi, 73, won the other half for his work on the interplay of disorder and fluctuations in physical systems.

This is the first time climate scientists have been awarded the Physics Nobel.

The IPCC had won the Peace Nobel in 2007, an acknowledgement of its efforts in creating awareness for the fight against climate change, while a Chemistry Nobel to Paul Crutzen in 1995, for his work on the ozone layer, is considered the only other time someone from atmospheric sciences has won this honour.

Hence only statement 1 is correct.

Q.5) Consider the following statements regarding AMRUT 2.0 mission, seen recently in news:

1. AMRUT 2.0 aims to provide 100% coverage of water supply to all households in around 4,700 Urban Local Bodies.
2. It will provide 100% coverage of sewerage and septage in all Urban Local Bodies.
3. The Ministry of Tourism is the nodal ministry for the scheme.

Which of the above statements is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only

d) 1, 2 and 3

Explanation: AMRUT was launched as the first water – focused Mission in 2015, with a total Mission outlay of ₹1,00,000 crore. The Mission caters to 500 major cities covering 60% of the urban population. The Ministry of Housing and Urban Affairs (MoHUA) is the nodal ministry for the scheme.

The Objective of AMRUT 2.0 is to provide 100% coverage of water supply to all households in around 4,700 ULBs, by providing 2.68 crore urban household tap connections, thereby benefitting around 10.7 crores people.

It will provide 100% coverage of sewerage and septage in 500 AMRUT cities, by providing 2.64 crore sewer connections/ septage connections, thereby benefitting around 10.6 crores people.

It will promote circular economy of water through formulation of City Water Balance Plan for each city, focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation. Digital economy will be promoted through being a Paperless Mission.

The Mission seeks to promote AatmaNirbhar Bharat through encouraging Startups and Entrepreneurs. It will lead to promotion of GIG economy and on-boarding of youth & women. Urban Water Information System through NRSC will be developed, leading to Aquifer Management system.

Q.6) Consider the following statements regarding Tax Inspectors Without Borders Programme, launched recently:

1. It is an initiative of the World Bank.
2. It aims to support countries in building tax audit capacity.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Tax Inspectors Without Borders (TIWB) is a joint initiative of the Organisation for Economic Co-operation and Development (OECD) and the United Nations Development Programme (UNDP) supporting countries in building tax audit capacity.

TIWB Programmes complement the broader efforts of the international community to strengthen co-operation on tax matters and contribute to the domestic resource mobilisation efforts of developing countries.

Q.7) With reference to Project Insight, consider the following statements:

1. It is a project launched by Union Home Ministry to monitor high value transactions and detect tax evaders.
2. It will use data mining, big data analytics to identify tax evaders from social media platforms.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is incorrect: Project has been launched by Union Finance Ministry

Statement 2 is correct

Q.8) Hemchandra's numbers sometimes seen in news are associated with?

- a) Fermat's 2019's theorem
- b) Fibonacci series**
- c) Pythagoras theorem
- d) Golden Ratio

Explanation: Fibonacci numbers is also referred to as Pingala's numbers or Hemachandra's numbers.

Q.9) Which amongst the following statements is the best description of Ex Milan?

- a) India, Thailand and Singapore annual trilateral exercise
- b) Naval exercise between United Arab Emirates (UAE) and India
- c) Multilateral naval exercise hosted by the Indian Navy**
- d) Naval exercise in the Indo-Pacific region by India, USA and Japan

Explanation: Exercise Milan is a multilateral naval exercise hosted by the Indian Navy under the aegis of the Andaman and Nicobar Command.

It is a biennial event held in the Andaman and Nicobar Islands, and features professional exercises and seminars, social events and sporting fixtures between participating nations.

Milan was first held in 1995.

Q.10) With respect to Narcotic Drugs and Psychotropic Substances Act, which of the following

statements is/are correct?

1. Every offence punishable under this Act shall be cognizable.
2. It is mandatory for the judge to award the Death penalty for certain offences after a previous conviction.

Options:

- a) 1 only
- b) 2 only
- c) Both
- d) None

Explanation: Under the Narcotic Drugs and Psychotropic Substances Act, every offence punishable under this Act shall be cognizable.

Cognizable offences are those where a police officer can arrest without a warrant.

Non-cognizable offence, as the name suggests, is the offence in which the police has no authority to

apprehend a person for crime on its own, as explicit permission of the court is required.

The judge has an option to award the Death penalty for certain offences after a previous conviction. It is not mandatory.

October 7

Q.1) Consider the following statements:

1. Malaria is a mosquito-borne disease.
2. RTS.S/AS01 vaccine is the world's first vaccine against malaria.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 & 2
- d) None of the Above

Explanation: Both Statements 1 & 2 are correct:

The World Health Organisation, recently, allowed the “widespread use” of the world's first vaccine against malaria, a common mosquito-borne disease that claims more than four lakh lives every year.

Developed by GlaxoSmithKline, the vaccine, known as RTS,S/AS01, has already been administered to nearly 8 lakh children in Ghana, Kenya and Malawi as part of a pilot programme since 2019.

The WHO endorsement paves the way for the use of this vaccine outside the pilot programme, in all areas where malaria is known to be widely prevalent.

But the RTS,S/AS01 vaccine, known by its brand name of Mosquirix, is considered only the first step towards effective immunisation of the global population against malaria

This vaccine can prevent severe cases of malaria in only 30 per cent of the cases, and the quest for more effective vaccines is still underway.

Malaria is known to be one of the deadliest diseases in human history, has claimed millions of lives. Even now, the disease kills over four lakh every year, according to WHO figures.

This is still a huge improvement from twenty years ago when close to double the number of people was succumbing to the disease.

Malaria is most endemic in Africa, with Nigeria, Congo, Tanzania, Mozambique, Niger and

Burkina Faso together accounting for over half the yearly deaths.

India is one of the countries badly affected by the disease. Deaths due to malaria have come down sharply in the last few years.

Q.2) Recently seen in the news, the S-400 Missile system is developed by?

- a) USA
- b) Russia
- c) Israel
- d) China

Explanation: Sophisticated S-400 Triumph ‘SA-21 Growler’ is known as Russia's most advanced long-range surface-to-air missile (SAM) system.

The ‘Triumph’ interceptor-based missile system can detect and destroy incoming hostile aircraft, high and low targets and even drones at ranges of up to 400km.

These systems are built to destroy aerial threats, unmanned aerial vehicles (UAV) as well as cruise and ballistic missiles within the range of 400km at an altitude of up to 30km.

The system is also equipped to simultaneously engage 36 targets.

An upgraded version of the S-300, the S-400 is said to be twice as effective and can easily be deployed within five minutes.

As India and Russia eye on the delivery of the S-400 Triumph Air Defence System, the training of the Indian specialists moves according to the plan on how to operate the S-400 system.

Q.3) Consider the following statements regarding Net Present Value (NPV) of forests:

1. It is a mandatory one-time payment that a user has to make for diverting forestland for non-forest use.
2. These payments go to the Compensatory Afforestation Fund.

3. It is mandated under the Environment Protection Act, 1986.

Which of the above statements is/are correct?

- a) 1 only
- b) 1 and 2 only**
- c) 3 only
- d) 1 and 3 only

Explanation: Net Present Value

It is a mandatory one-time payment that a user has to make for diverting forestland for non-forest use, under the Forest (Conservation) Act, 1980.

This is calculated on the basis of the services and ecological value of the forests.

It depends on the location and nature of the forest and the type of industrial enterprise that will replace a particular parcel of forest.

These payments go to the Compensatory Afforestation Fund (CAF) and are used for afforestation and reforestation.

Decided by: The Forest Advisory Committee.

The Committee is constituted by the Ministry of Environment, Forest and Climate Change (MoEF&CC) and decides on whether forests can be diverted for projects and the NPV to be charged.

It is a statutory body constituted by the Forest (Conservation) Act 1980.

Q.4) Which of the following is/are the coral triangle countries?

- 1. Indonesia
- 2. Singapore
- 3. Philippines

Choose the correct answer from the codes given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only**
- d) 1, 2 and 3

Explanation: The Coral Triangle is a marine area located in the western Pacific Ocean. It includes the waters of Indonesia, Malaysia, the Philippines, Papua New Guinea, Timor Leste and Solomon Islands.

Named for its staggering number of corals (nearly 600 different species of reef-building corals alone), the region nurtures six of the world's seven marine turtle species and more than 2000 species of reef fish.

The Coral Triangle also supports large populations of commercially important tuna, fueling a multi-billion dollar global tuna industry.

Over 120 million people live in the Coral Triangle and rely on its coral reefs for food, income and protection from storms.

Q.5) Edayur Chilli and Kuttiattor Mango which recently receives G.I. tag, belongs to the state of:

- a) Andhra Pradesh
- b) Kerala**
- c) Tamil Nadu
- d) Karnataka

Explanation: Edayur Chilli and Kuttiattor Mango which recently receives G.I. tag, belongs to the state of Kerala.

Low pungency is the unique character of Edayur chilli (known as Edayur Mulaku in Malayalam).

Kuttiattor mango (Kuttiattor manga in Malayalam) is a popular and tasty traditional mango cultivar of Kuttiattor and the nearby Grama Panchayaths of Kannur district in North Kerala, India.

Q.6) With reference to the PM MITRA, consider the following statements:

- 1. It was announced in Union Budget for 2021-22.
- 2. PM MITRA is inspired by the 5F vision of Prime Minister Modi.

3. The '5F' Formula encompasses - Farm to fibre; fibre to factory; factory to fashion; fashion to foreign.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only

d) 1, 2 and 3

Explanation: To position India strongly on the Global textiles map, the Government of India has approved the setting up of 7 PM MITRA parks as announced in Union Budget for 2021-22.

PM MITRA is inspired by the 5F vision of Prime Minister Modi. The '5F' Formula encompasses - Farm to fibre; fibre to factory; factory to fashion; fashion to foreign.

The 7 Mega Integrated Textile Region and Apparel Parks (PM MITRA) will be setup at Greenfield / Brownfield sites located in different willing States.

The PM MITRA parks will have following:

Core Infrastructure: Incubation Centre & Plug & Play facility, Developed Factory Sites, Roads, Power, Water and Waste Water system, Common Processing House & CETP and other related facilities e.g. Design Centre, Testing Centres etc.

Support Infrastructure: Workers' hostels & housing, logistics park, warehousing, medical, training & skill development facilities

Hence all statements are correct.

Q.7) Who among the following have won the 2021 Nobel Prize in Chemistry?

- a) Benjamin List and David MacMillan
- b) Michel Mayor and Jim Peebles
- c) Esther Duflo
- d) Didier Queloz

Explanation: Two scientists have been awarded the 2021 Nobel Prize in Chemistry for their work

on building molecules that are mirror images of one another.

German-born Benjamin List and Briton David MacMillan (Born in Bellshill, United Kingdom and Professor at Princeton University, USA) were announced as the winners at an event in Stockholm.

Their chemical toolkit has been used for discovering new drugs and making molecules that can capture light in solar cells. The winners will share the prize money of 10 million Swedish kroner (1,135.54 million US Dollars).

The technique, called asymmetric organocatalysis, has made it much easier to produce asymmetric molecules - chemicals that exist in two versions, where one is a mirror image of the other.

Chemists often just want one of these mirror images - particularly when producing medicines - but it has been difficult to find efficient methods for doing this.

Hence, option (a) is the correct answer.

Q.8) K.S. Valdiya committee was sometime seen in news. The committee is formed to study which of the following?

- a) To study the floods in North-Eastern India and suggest measures.
- b) To study the impact of climate change in Agriculture.
- c) To study the Glacial Lake Outburst Floods in Himalayan Region.

d) To study the paleochannels in North-West India.

Explanation: The erstwhile Ministry of Water Resources had constituted a seven-member committee, headed by Professor K.S. Valdiya to understand the paleochannels in North-West India. The committee submitted its report in 2016. The major findings were First, The banks of one of the misfit rivers, the Ghaggar-Hakra-Saraswati-Drishadvati, are associated with the multiplicity of paleochannels. Second, evidence from paleochannels suggests that the mythological Saraswati River did indeed exist. River Saraswati

originated from Adibadri in Himalaya to culminate in the Arabian Sea through the Runn of Kutch. It was approximately 4000 km in length.

Explanation: A team of researchers from Delhi University (DU) have discovered a new species of cascade frog in Arunachal Pradesh. They have named the frog species as “Adi Cascade Frog (Amolops Adicola)”

Q.9) With reference to Aadhar Enabled Payment System (AePS) , consider the following statements:

1. It allows online interoperable financial inclusion transactions at Point of Sale
2. AePS is developed by National Payment Corporation of India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: It is a bank-led model which allows online interoperable financial inclusion transactions at Point of Sale (Micro ATM) through the Business correspondent (BC) (informal bank agent) of any bank using the Aadhaar authentication. Statement 2 is correct: AEPS is developed by the National payment corporation of India (NPCI). It allows easy access to basic financial services through a micro ATM by just entering your Aadhaar pin and verifying it with your fingerprint.

Q.10) What is Amolops Adicola that has been in news recently?

- a) A cascade frog species discovered in Arunachal Pradesh.**
- b) A new grass species discovered in the Western Ghats.
- c) Lizard species endemic to the Easter Ghats.
- d) Blind eel species discovered in Mumbai.

October 8

Q.1) As per the State of Climate Services 2021 report released recently, consider the following statements:

1. 5 per cent of water on Earth is usable and available as freshwater.
2. In past 20 years the biggest loss of Terrestrial Water Storage occurred in Antarctica and Greenland.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The report titled 2021 State of Climate Services is released recently by the World Meteorological Organization (WMO).

Highlights of the report:

Water-related hazards like floods and droughts are increasing because of climate change.

In the past 20 years, terrestrial water storage – the summation of all water on the land surface and in the subsurface, including soil moisture, snow and ice – has dropped at a rate of 1cm per year.

The biggest losses are occurring in Antarctica and Greenland, but many highly populated lower latitude locations are experiencing significant water losses in areas that are traditionally providing water supply, with major ramifications for water security.

The situation is worsening by the fact that only 0.5% of water on Earth is useable and available freshwater.

Water-related hazards have increased in frequency over the past 20 years. Since 2000, flood-related disasters have risen by 134% compared with the two previous decades.

The report makes strategic recommendations for policy makers to improve the implementation and effectiveness of climate services for water worldwide:

Invest in Integrated Resources Water Management as a solution to better manage water stress, especially in Small Island Developing States (SIDS) and Least Developed Countries (LDCs);

Invest in end-to-end drought and flood early warning systems in at-risk LDCs, including for drought warning in Africa and flood warning in Asia;

Fill the capacity gap in collecting data for basic hydrological variables which underpin climate services and early warning systems;

Improve the interaction among national level stakeholders to co-develop and operationalize climate services with information users to better support adaptation in the water sector.

Join the Water and Climate Coalition. This is organized by WMO in response to the need for integrated policy developments and improved practical solutions. The coalition provides countries with support to improve assessment of water resources as well as forecasting and outlook services for water.

Q.2) With reference to State of the Education Report for India 2021, consider the following statements:

1. The report is released by NITI Aayog.
2. As per the report the gross enrolment ratio for elementary schools has decreased in past 20 years.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2**

Explanation: State of the Education Report for India 2021 report has been released recently by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Highlights of the report:

The gross enrolment ratio (GER) for elementary schools has increased from 81.6 in 2001 to 93.03 in 2018-19 and stands at 102.1 in 2019-2020, overall retention is 74.6 per cent for elementary education

and 59.6 per cent for secondary education in 2019-20.

The overall availability of computing devices (desktops or laptops) in school is 22 per cent for all India, with rural areas seeing much lower provisioning (18 per cent) than urban areas (43 per cent).

Access to the internet in schools is 19 per cent all over India – only 14 per cent in rural areas compared to 42 per cent in urban areas.

The total number of teachers in the system grew by 17 per cent from 8.9 million teachers in 2013-14 to 9.4 million in 2018-19.

The overall pupil-teacher ratio (PTR) changed from 31:1 in 2013-14 to 26:1 in 2018-19.

Half of India's 9.43 million school teachers are women.

On average, 86 per cent of schools across the country – 89 per cent of urban schools and 85 per cent of rural schools – are accessible by road. In hilly or mountainous states and union territories, such as in the north-east, Himachal Pradesh, and Jammu and Kashmir, the proportion drops to between 59 per cent and 68 per cent.

Q.3) Global Gender Gap Report, is published by which of the following organizations?

- a) International Labor organization
- b) World Economic Forum**
- c) World Bank
- d) International Monetary Fund

Explanation: Statement b is correct: WEF releases the Global Gender Gap Report. The report ranks 156 countries on their progress towards gender parity in four dimensions. Namely Economic Participation and Opportunity, Educational Attainment, Health and Survival, Political Empowerment. Ranking: India's ranking on the Index drops 28 places to 140 amongst the 156 nations. In 2020, India was ranked at 112th place in the report

Q.4) With reference to the Ayushman Bharat Digital Mission (ABDM), consider the following statements:

- 1. One card per family will be issued for digital health records.
- 2. It is implemented by National Health Authority (NHA) under the Ministry of Health and Family Welfare.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is incorrect: Under this mission, every citizen will get a unique health ID which would act as a digital repository of all health-related data of an individual. The digital health ID is voluntary and free of cost. Statement 2 is correct: Implementing Agency is National Health Authority (NHA) under the Ministry of Health and Family Welfare.

Q.5) RTS.S sometimes seen in news is a?

- a) first and, to date only, vaccine shown to have the capability of significantly reducing malaria.**
- b) A portable medical kit for developed for on the go and easy detection of COVID.
- c) Newly developed emission standard for electric vehicles.
- d) a standard for the layout of partition tables of a physical computer storage device.

Explanation: RTS,S/AS01 (RTS.S), trade name Mosquirix, which was endorsed by the World Health Organisation (WHO) on Wednesday (October 6), is the first and, to date only, vaccine shown to have the capability of significantly reducing malaria, and life-threatening severe malaria, in tests on young African children.

Q.6) With reference to Bonn convention, consider the following statements:

1. It is the only global convention specializing in the conservation of migratory species.
2. Appendix I includes migratory species requiring international cooperation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: It is the only global convention specializing in the conservation of migratory species, their habitats and migration routes.

Statement 2 is incorrect: Migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention

Q.7) The 2021 Nobel prize for Physiology or Medicine was awarded to researchers David Julius and Ardem Patapoutian for their work on how human body perceives temperature and pressure. In their research, they found out that the body's receptor for heat only gets activated

- a) Above 40 degrees C
- b) Above 28 degrees C
- c) Above 35 degrees C
- d) Above 45 degrees C

Explanation: The 2021 Nobel prize for Physiology or Medicine was awarded to researchers David Julius and Ardem Patapoutian for their work on how the human body perceives temperature and pressure. In their research, they found out that the body's receptor for heat only gets activated above 40 °C.

Q.8) Which of the following statements is/are incorrect regarding the Appellate authority which is a part of WTO's dispute resolution mechanism?

1. It is an ad-hoc body of seven members and acts as an appellate court for hearing appeals from decisions given by the WTO panels.
2. The authority has not been working since 2019 since China has vetoed every proposal to fill in the existing vacancies.
3. At least 5 people are required to preside over an appeal.

Options:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Explanation: The WTO's Appellate Body is its highest court for dispute resolution.

The Appellate Body, set up in 1995, is a standing committee of seven members that presides over appeals against judgments passed in trade-related disputes brought by WTO members.

On 10 December 2019, the Appellate Body became dysfunctional after the US' continuous blockage of the appointment of new Appellate Body members left only one member on the bench.

It requires three members to hear appeals.

Q.9) Who among the following won the Nobel Prize for Literature 2021?

- a) Abdulrazak Gurnah
- b) Abiy Ahmed
- c) Peter J. Ratcliffe
- d) William G. Kaelin

Explanation: Abdulrazak Gurnah, 72, who was born in Zanzibar and now lives in the UK, became

the fifth African writer to win the Nobel Prize for Literature, after Nigerian writer Wole Soyinka (1986), Egyptian Naguib Mahfouz (1988), and South African writers Nadine Gordimer (1991) and John M Coetzee (2003).

He is the author of 10 novels and several short stories and essays, including *Memory of Departure* (1987), *Pilgrims Way* (1988), *Paradise* (1994), *By the Sea* (2001), *Desertion* (2005), *Gravel Heart* (2017) and, most recently, *Afterlives* (2020).

His writing explores the immigrant experience and how exile and loss shape identities and cultures.

Most of his books feature African Arab protagonists trying to come to terms with dislocation and estrangement, looking in on societies and cultures on which their holds are tenuous.

Zanzibar is an autonomous region of Tanzania. It is composed of the Zanzibar Archipelago in the Indian Ocean.

Hence, option (a) is the correct answer.

Hence, option (a) is the correct answer.

Q.10) Recently seen in news, EXERCISE AJEYA WARRIOR is between the armed forces of India and:

- a) U.K
- b) U.S.A
- c) China
- d) France

Explanation: The 6th Edition of India - UK Joint Company Level Military Training EXERCISE AJEYA WARRIOR has commenced at Chaubatia, Uttarakhand and will culminate on 20 Oct 2021.

During this exercise, an Infantry Company from Indian Army and an equivalent strength from UK Army would be sharing their experiences gained during the conduct of various military operations in their respective countries and during overseas engagements.

As part of the training, both the Armies would familiarise with each other's weapons, equipment, tactics, techniques and procedures for carrying out joint military operations.

October 9

Q.1) Who among the following won the Nobel Prize for Peace 2021?

- a) Maria Ressa and Dmitry Muratov
- b) John B. Goodenough and Akira Yoshino
- c) M. Stanley Whittingham
- d) Peter Handke

Explanation: In an age marked by authoritarian regimes around the world, misinformation and hate speech, the Nobel Prize for Peace was awarded to two journalists who have been running independent news organisations in their countries, often under the threat of detention and even death.

Maria Ressa of the Philippines and Dmitry Muratov of Russia received the Prize “for their courageous fight for freedom of expression”.

An investigative journalist, Ressa in 2012 co-founded Rappler, a digital media platform for investigative journalism, which she continues to head. Rappler has “focused critical attention” on President Rodrigo Duterte regime’s controversial, murderous anti-drug campaign.

In the RSF’s 2021 World Press Freedom Index, the Philippines ranked 138 of 180 nations (India was ranked lower, at 142).

Dmitry Muratov “has for decades defended freedom of speech in Russia under increasingly challenging conditions”. During the Vladimir Putin regime, Russia has ranked 150 in the RSF’s 2021 World Freedom Index.

Five years after Muratov left the popular daily Komsomolskaya Pravda, he along with around 50 colleagues started Novaja Gazeta in 1993, as one of its founders. He has served as the newspaper’s editor-in-chief since 1995.

Hence, option (a) is the correct answer.

Q.2) SVAMITVA is a scheme of which of the following ministry?

- a) Ministry of Housing and Urban Affairs
- b) Ministry of Panchayati Raj
- c) Ministry of Rural Development

d) Ministry of Electronics and Information Technology

Explanation: SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme is a new initiative of the Ministry of Panchayati Raj. It aims to provide rural people with the right to document their residential properties so that they can use their property for economic purposes.

The scheme is for surveying the land parcels in rural inhabited area using Drone technology. The survey shall be done across the country in a phase wise manner over the period 2020 -2025.

Objectives of the scheme are:

To bring financial stability to the citizens in rural India by enabling them to use their property as a financial asset for taking loans and other financial benefits.

Creation of accurate land records for rural planning.

Determination of property tax, which would accrue to the GPs directly in States where it is devolved or else, add to the State exchequer.

Creation of survey infrastructure and GIS maps that can be leveraged by any department for their use.

To support in preparation of better-quality Gram Panchayat Development Plan (GPDP) by making use of GIS maps.

To reduce property related disputes and legal cases

Q.3) Consider the following statements with regards to the EWS quota as it applies to the NEET exam.

1. The individual’s income for inclusion in the EWS quota must be under Rs. 8 lakh per annum.
2. 102nd Constitutional Amendment Act, 2018 led to the introduction of EWS reservation.
3. For inclusion under this criteria, the family should not own agricultural land of size 3 acres or more.

Which of these statements is/are incorrect?

- a) 1 & 2 only

b) 2 & 3 only

c) 1 & 3 only

d) All of the above

Explanation: For an individual to be eligible for the EWS quota, the family's income must be under Rs. 8 lakh per annum.

103rd Constitutional Amendment Act, 2019 led to the introduction of EWS reservation.

For inclusion under this criteria, the family should not own agricultural land of size 5 acres or more.

Q.4) Consider the following statements with regard to Multidimensional Poverty Index and choose the correct ones.

1. The index is published annually by Oxford Poverty and Human Development Initiative and United Nations Development Programme.

2. The three dimensions included in the index are Health, Education and Living Standard.

3. All the UN member nations are included in the index to get a holistic view.

Options:

a) 1 & 2 only

b) 2 & 3 only

c) 1 & 3 only

d) All of the above

Explanation: Multidimensional Poverty Index is published annually by Oxford Poverty and Human Development Initiative and United Nations Development Programme.

The three dimensions included in the index are Health, Education and Living Standard.

Usually, over 100 developing countries are evaluated. MPI 2020 presented 107 country-specific details.

The MPI value is calculated by multiplying the incidence of poverty by the average share of deprivations (H x A).

Q.5) With regard to India's joint military exercises with different nations, which of the following is/are not correctly matched?

1. Mongolia
Nomadic Elephant

2. Thailand
Maitree

3. UK
Vajra Prahar

4. Nepal
Surya Kiran

Options:

a) 1 & 2 only

b) 3 only

c) 1 & 4 only

d) All of the above

Explanation: Indo-Mongolian Joint Military Exercise is termed 'Nomadic Elephant'.

Exercise Maitree is a bilateral exercise between the Indian Army and the Royal Thai Army, started off in 2006. It is an annual event between the troops of the armies of both countries. It is also called Indo-Thailand Joint Exercise.

The joint military exercise Vajra Prahar between India and the US started off in 2010. 'Vajra Prahar' is a Special Forces joint training exercise conducted alternately in India and the US.

Surya Kiran is a bilateral Joint Military Exercise between Indian and Nepal.

Ajeya Warrior is a bilateral military exercise between India and the UK.

Q.6) With reference to Countering America's Adversaries Through Sanctions Act (CAATSA), consider the following statements:

1. The Act empower US President to impose sanctions on countries that engage in a significant transaction with only the Russian defence and intelligence sectors.

2. Once imposed, the US President could not waive off the sanctions.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Recently, the American Deputy Secretary of State described the S-400 missile deal between India and Russia as dangerous, expressed hope that the India and US could solve the issue amicably. Statement 1 is correct: The CAATSA Act empowers the US President to impose sanctions against certain countries. The imposition of sanctions take place on countries that engage in a significant transaction with the Russian defence and intelligence sectors. The “ultimate goal” of CAATSA “is to prevent revenue to the Russian Government. Statement 2 is incorrect: The US President could waive off the sanctions if:

A Country is taking steps to reduce its dealings in terms of Russian weapons purchases or

A Country has better cooperation with the US on other security matters that are critical to the US strategic interests or

If the Russian weapons to the country do not significantly increase the risk to United States defence systems and operational capabilities.

Q.7) With reference to Mosquirix, consider the following statements

1. It is the first vaccine to be developed against any parasite.
2. It will provide protection against malaria caused by Plasmodium vivax.

Which of the statements given above is/are incorrect?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: Mosquirix is the first vaccine to be developed against any parasite.

Statement 2 is incorrect: Mosquirix is supposed to provide protection against malaria caused by Plasmodium falciparum

Q.8) After RBI’s October Monetary Policy Committee Meeting, what is the Repo rate?

- a) 4.5 %
- b) 4.25%
- c) 4.00%**
- d) 3.75%

Explanation: Reserve Bank of India (RBI)’s Monetary Policy Committee (MPC) kept the key lending rate — repo rate unchanged at 4 per cent for the eighth time in a row.

Reverse repo rate remained unchanged at 3.5 per cent. The policy stance will also kept unchanged at ‘accommodative’. The accommodative stance is voted for, as long as necessary to sustain growth on a durable basis, while ensuring that inflation remains within the target. RBI also retained FY22 GDP growth forecast at 9.5 per cent.

Q.9) The Blue Dot Network (BDN) is a multi-stakeholder initiative of which of the following countries?

1. US
2. Japan
3. India
4. Australia

Select the correct answer code:

- a) 1, 3
- b) 1, 2, 4**
- c) 1, 2, 3
- d) 1, 2, 3, 4

Explanation: The Blue Dot Network (BDN) is a multi-stakeholder initiative formed by the United States, Japan, and Australia to provide assessment and certification of infrastructure development projects worldwide.

Q.10) Brent Crude is often used as a benchmark for the prices of crude oils. It is found in parts of the North Sea off the coast of

a) Biscay near France

b) U.K. and Norway

c) Finland and Sweden

d) British Isles island in Ireland

Explanation: Brent blend is the name of one of two internationally-recognized types of crude oil that are used as benchmarks for prices of crude oil. Brent Blend comes from the North Sea and is considered a light, sweet crude oil. Brent blend is more than half of the crude oil traded internationally.

Brent blend is a blend of crude oil extracted from oilfields in the North Sea between the United Kingdom and Norway.

October 11

Q.1) Bhashan char, often mentioned in news, is located in:

a) Bangladesh

b) Saudi Arabia

c) Maldives

d) Sri Lanka

Explanation: The Government of Bangladesh and the United Nations signed an MoU for the relocation of Rohingya refugees to the newly developed facility at the Bhashan Char Island.

The MoU sets out the policy framework of services and common protection for the Rohingya humanitarian response on the island.

The MoU recognises the generosity of the government of Bangladesh for hosting almost 9 lakh Rohingya refugees in the country. It covers key areas of protection, education, skill development, training, livelihood and health which will help prepare them for sustainable return to Myanmar in the future.

Bhashan char is an uninhabited Island which has been developed at a cost of Tk 3100 crore as a relocation centre for refugees currently living in the refugee camps at Cox's Bazar in Bangladesh.

It has a capacity to accommodate approximately 1 lakh Rohingya refugees.

Earlier several environmental groups expressed concern over the fragile ecological situation on the island which emerged less than 20 years back from the sea. They point out the threat of cyclone, erosion and other natural disasters for the people who will live on the Island.

However, the govt of Bangladesh maintains that the facility is well protected as sufficient arrangement has been made with cyclone shelters and high embankment on the island. The facility at Bhashan char is considered better compared to the overcrowded camps at Cox's Bazar.

Till now close to 20,000 Rohingya refugees have already been settled on the Bhashan Char Island by the government.

Hence, option (a) is the correct answer.

Q.2) With reference to the global minimum tax deal, consider the following statements:

1. All UN member countries joined the agreement.

2. The global minimum tax rate would apply to overseas profits of multinational firms with 750 million euros (\$868 million) in sales globally.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: A global deal to ensure big companies pay a minimum tax rate of 15% and make it harder for them to avoid taxation has been agreed by 136 countries, the Organisation for Economic Cooperation and Development said.

The OECD said four countries – Kenya, Nigeria, Pakistan and Sri Lanka – had not yet joined the agreement, but that the countries behind the accord together accounted for over 90% of the global economy.

Why a global minimum tax? With budgets strained after the COVID-19 crisis, many governments want more than ever to discourage multinationals from shifting profits – and tax revenues – to low-tax countries regardless of where their sales are made.

The global minimum tax rate would apply to overseas profits of multinational firms with 750 million euros (\$868 million) in sales globally.

Governments could still set whatever local corporate tax rate they want, but if companies pay lower rates in a particular country, their home governments could “top up” their taxes to the 15% minimum, eliminating the advantage of shifting profits.

A second track of the overhaul would allow countries where revenues are earned to tax 25% of the largest multinationals’ so-called excess profit – defined as profit in excess of 10% of revenue.

Hence only statement 2 is correct.

Q.3) Consider the following about the Quarterly Employment Survey (QES)

1. It is released by the National Statistical office(NSO)
2. It is a part of All-India Quarterly Establishment-based Employment Survey (AQEES).
3. It provides update regarding both organized and unorganized sectors

Which of the above given statements is/are correct?

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) 2 and 3 only**

Explanation: News: Labour and Employment Minister Shri Bhupender Yadav today released the report of first quarter of Quarterly Employment Survey (QES) part (April to June 2021), of the All-India Quarterly Establishment-based Employment Survey (AQEES) prepared by the Labour Bureau.

About QES:

It is released by the Labour bureau as a part of All-India Quarterly Establishment-based Employment Survey (AQEES). Thus statement 1 is incorrect, whereas statement 2 is correct.

It provides updates about the employment and related variables of establishments, in both organised and unorganised segments of nine selected sectors.

Of the total employment estimated in the selected nine sectors, Manufacturing accounts for nearly 41% followed by Education with 22%, and Health 8%. Trade as well as and IT/BPO each engaged 7% of the total estimated number of workers. Thus statement 3 is correct.

Ministry of Labour has revealed that the suggested migrants' survey, will examine the details of migrants, including their finances, housing, consumption expenditure, and financial inclusion. It will also capture data pertaining to the migrant

workers' gender, level of education level, social group, vocational/technical training, and change in income post migration. The study will provide valuable information on the socio-economic conditions of migrant workers.

Q.4) Consider the following statements

1. Of all the variants of the Uranium, only U-235 can provide thermal neutrons to sustain a chain reaction.
2. Natural Uranium contains over 20% of U-235.
3. To create a weapons grade Uranium fuel over 90% of enrichment of U-235 is needed.

Which of the above given statements is/are correct?

- a) 1 only
- b) 2 only
- c) 1 and 3 only**
- d) 2 and 3 only

Explanation: Nuclear Fission: Nucleus of radioactive heavy metals are fissioned to derive energy.

Only Fission of U-235 provides thermal Neutrons which can create a chain reaction. Thus statement 1 is correct.

However, natural Uranium contains less than 1% of U-235. Thus statement 2 is incorrect.

A reactor is said to be critical when it sustains a fission chain reaction. This happens when fuel is at least 2 to 5% enriched. Iran is allowed to enrich Uranium only to 3% which is necessary to run reactors under its Nuclear agreement.

To create a weapons grade Uranium fuel over 90% of enrichment of U-235 is needed. Thus statement 3 is correct.

Q.5) Which of the following ministry is responsible for organizing 'Hunar Haat' is correct?

- a) Ministry of Labour

- b) Ministry of skill development and entrepreneurship
- c) Ministry of social justice and empowerment
- d) Ministry of Minority affairs.**

Explanation: About Hunar haat

It is an exhibition of handicrafts and traditional products made by artisans from the minority communities.

These are organised by the Ministry of Minority Affairs under USTTAD (Upgrading the Skills & Training in Traditional Arts/Crafts for Development) scheme.

It aims to provide market exposure and employment opportunities to artisans, craftsmen and traditional culinary experts.

The next "Hunar Haat" will be organised in Rampur, Uttar Pradesh, from 16th to 25th October, 2021 as a part of series of 75 "Hunar Haat", going to be organised across the country under "Azadi Ka Amrit Mahotsav" to celebrate 75 years of India's Independence.

Q.6) Green Ribbon Initiative, recently seen in news, is related to:

a) Mental health

- b) Dengue
- c) Covid-19
- d) None of the above

Explanation: To commemorate World Mental Health Day, the Ministry of Health launched a Green Ribbon Initiative. The initiative intends to raise awareness on Mental Health as part of the activities being taken up during ongoing Mental Health Awareness Week, 5th-10th October.

Mental Health Services in India

The Union Social Justice and Empowerment Ministry provides a 24/7 toll-free helpline to give support to people facing anxiety, stress, depression, suicidal thoughts and other mental health concerns.

The mental health rehabilitation helpline, KIRAN, can be called from landline and mobile phones

across the country at the number 1800-599-0019. The helpline KIRAN was launched in collaboration with state-run telecom firm Bharat Sanchar Nigam Limited (BSNL) that provides the department with telecom infrastructure.

The Principal Scientific Adviser to the Government of India Prof. K VijayRaghavan launched the "MANAS" App to promote wellbeing across age groups on 14 April 2021. It has been endorsed as a national program by the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).

As per Mental Healthcare Act, 2017, mental healthcare services of India have been integrated into general healthcare services like National Health Mission, PMSSY, Rashtriya Kishore Swasthya Karyakram, AYUSHMAN Bharat, PMJAY, etc.

The Ministry of Education under Atmanirbhar Bharat Abhiyan also runs the "Manodarpan" initiative, aimed to provide psychosocial support to students, family members and teachers for their mental health and well-being during the times of Covid-19.

The National Institute of Mental Health and Neuro-Sciences (NIMHANS) runs a "NIMHANS RAAH app" that provides free information to the public on mental health care professionals and mental healthcare centres in the form of a one-stop source of data on mental health centres and professionals.

World Mental Health Day

World Mental Health Day is celebrated every year on October 10 wherein countries, governments and people speak about this very important aspect of the overall health of individuals.

World Mental Health Day was first observed on October 10, 1992, as an annual activity of the World Federation for Mental Health. Initially, the day was celebrated without any prior set theme or curated agenda other than to talk about Mental Health in general.

In 1994 for the first time, a theme for the day was used which was "Improving the Quality of Mental Health Services throughout the World."

The theme of this year's World Mental Health Day is 'Mental health in an unequal world'.

Hence, option (a) is the correct answer.

Q.7) India currently has trading of Gold using

1. Gold derivatives
2. Gold ETFs
3. Spot exchanges for physical trade in gold

Select the correct answer code:

- a) 2 only
- b) 1, 2**
- c) 2, 3
- d) 1, 2, 3

Explanation: BSE is ready with the technology to introduce electronic gold receipts (EGRs) on its platform. This will help create uniform price structure for the precious metal across the country.

This comes after the Sebi board cleared a proposal for gold exchange, wherein the yellow metal will be traded in the form of EGRs and will help in having a transparent domestic spot price discovery mechanism. India currently has trading only in gold derivatives and Gold ETFs, unlike several other countries which have spot exchanges for physical trade in gold.

The instruments representing gold will be called Electronic Gold Receipts (EGRs) and will be notified as securities, with trading, clearing and settlement features similar to other securities that are currently available in India.

Like shares, these EGRs will be held in demat form and can be converted into physical gold when needed.

Q.8) Which of the given statement/s is/are correct:

1. China's Chang'e-5 brought back lunar samples from Oceanus Procellarum region of the moon.
2. One of the objectives of Chang'e-5 was to study the volcanic activity on the surface of the moon.

3. The United States of America, the Soviet Union, China and India are the only countries to have successfully brought back lunar samples to Earth.

Options:

- a) 1 and 3 only
- b) 2 and 3 only
- c) 1 and 2 only**
- d) None of the above

Explanation: The Chang'e-5 is China's lunar mission probe that touched down on a previously unvisited part of a massive lava plain, the Oceanus Procellarum or "Oceans of Storms," bringing back lunar samples.

One of the main objectives of Chang'e-5, was to find out how long the moon remained volcanically active. The Oceanus Procellarum region of the Moon is characterised by high concentrations of potassium, thorium, and uranium, elements that generate heat through long-lived radioactive decay.

Only erstwhile Soviet Union and United States of America had previously brought back the lunar remains. Samples brought back by U.S. and Soviet missions were more than 2.9 billion years old. This is the third instance.

India has not brought back any lunar remain sample yet.

Q.9) The Global Infrastructure Facility is a/an:

- a) ASEAN initiative to upgrade infrastructure in Asia and financed by credit from the Asian Development Bank.
- b) World Bank collaboration that facilitates the preparation and structuring of complex infrastructure Public-Private Partnerships (PPPs) to enable mobilization of private sector and institutional investor capital.**
- c) Collaboration among the major banks of the world working with the OECD and focused on

expanding the set of infrastructure projects that have the potential to mobilize private investment.

d) UNCTAD funded initiative that seeks to finance and facilitate infrastructure development in the world.

Explanation: The World Bank Group launched a new Global Infrastructure Facility (GIF) to ensure that billions of dollars are channelized to develop world-class infrastructure in emerging markets like India and developing economies.

Q.10) Nations across the world have been contemplating imposing a minimum permissible level of corporate tax in order to counter tax havens. Which of the following rates of minimum corporate tax has been decided by these nations?

a) 23%

b) 15%

c) 20%

d) 18%

Explanation: According to Organisation for Economic Cooperation and Development (OECD), a global deal to ensure big companies pay a minimum tax rate of 15% and make it harder for them to avoid taxation has been agreed upon by 136 countries.

The global minimum tax is being discussed as the governments want to discourage multinationals from shifting profits – and tax revenues – to low-tax countries regardless of where their sales are made.

The global minimum tax rate would apply to overseas profits of multinational firms with 750 million euros in sales globally.

Governments could still set whatever local corporate tax rate they want, but if companies pay lower rates in a particular country, their home governments could top up their taxes to the 15% minimum, eliminating the advantage of shifting profits.

October 12

Q.1) With reference to the Conference of Interaction and Confidence Building Measures in Asia (CICA), consider the following statements:

1. It is an inter-governmental forum for enhancing cooperation towards promoting peace, security and stability in Asia.
2. India has not been associated with the CICA process.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: External Affairs Minister S Jaishankar arrived in Nur Sultan in Kazakhstan on the second leg of visit to Central Asia. Dr Jaishankar will attend the 6th Ministerial meeting of the Conference of Interaction and Confidence Building Measures in Asia (CICA) in Nur-Sultan. Kazakhstan is the current Chair and initiator of the CICA Forum.

It is an inter-governmental forum for enhancing cooperation towards promoting peace, security and stability in Asia.

Timeline

CICA was established at the initiative of President Nursultan Nazarbayev of Kazakhstan outlined at the 47th UNGA in 1992.

First Ministerial Meeting was held in September 1999 and First Summit was held in June 2002.

The two founding documents of CICA are Declaration on the Principles Guiding Relations between the CICA Member States adopted at the First Meeting of Ministers of Foreign Affairs held in Almaty on 14 September 1999 and the Almaty Act, charter of CICA, adopted at the First Summit held in Almaty on 4 June 2002.

Members

To be a member of CICA, a state must have at least a part of its territory in Asia.

Presently CICA has twenty-seven Member States. India has been associated with the CICA process and its activities since the Beginning.

Nine countries and five multi-national organizations, including the United Nations, have observer status.

Administration

The highest decision making organ of CICA is the Meeting of the CICA Heads of State and Government (Summit).

The CICA Summit is convened every four years. The Meeting of the Ministers of Foreign Affairs is required to be held every two years.

The CICA Secretariat - administrative body of CICA - is located in Nur-Sultan, Kazakhstan.

Hence only statement 1 is correct.

Q.2) Who among the following won the Nobel Economics Prize 2021?

- a) David Card, Joshua Angrist and Guido Imbens
- b) Denis Mukwege
- c) Nadia Murad
- d) Gérard Mourou and George P. Smith

Explanation: The Royal Swedish Academy of Sciences awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021 — often incorrectly referred to as the Nobel Prize in Economics — to three US-based economists.

A U.S. based Canadian David Card, Israeli-American Joshua Angrist and Dutch-American Guido Imbens won the Nobel Economics Prize for providing “new insights about the labour market” and showing “what conclusions about cause and effect can be drawn from natural experiments”.

Half of the prize went to Card, a professor at the University of California, Berkeley “for his empirical contributions to labour economics.” Card’s work has focused on labour market effects of minimum wages, immigration and education.

The other half went jointly to Angrist, a professor at the Massachusetts Institute of Technology

(MIT), and Imbens, a professor at Stanford, “for their methodological contributions to the analysis of a causal relationship.

Hence, option (a) is the correct answer.

Q.3) With reference to the NITI Aayog – United Nations Development Programme (UNDP) Handbook on Sustainable Urban Plastic Waste Management, consider the following statements:

1. It provides a comprehensive overview of managing plastic waste by representing and discussing components of the entire plastic waste value chain.

2. The Handbook can be adopted by urban local bodies to good effect.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: NITI Aayog Vice Chairman Rajiv Kumar has launched the NITI Aayog – United Nations Development Programme (UNDP) Handbook on Sustainable Urban Plastic Waste Management in New Delhi.

It provides a comprehensive overview of managing plastic waste by representing and discussing components of the entire plastic waste value chain.

The Handbook can be adopted by urban local bodies to good effect.

NITI Aayog CEO, Amitabh Kant reiterated the significance of the Re-use, Reduce and Recycle model and the need to create a mass movement around the use of plastics.

Material Recovery Facility (MRF)

NITI Aayog in this handbook has suggested urban local bodies across states adopt the material recovery facility (MRF) model & implement it as a public-private partnership model for sustainable management of urban plastic waste.

A materials recovery facility, also known as a materials reclamation facility or recycling facility is a specialized plant that receives, separates, and prepares recyclable materials for marketing to end-user manufacturers.

The model is initially funded by private players, supported by urban local bodies, and operated by service providers including local organizations and waste management agencies.

this model ensures compliance with regulations and improves resource utilization.

Hence both statements are correct.

Q.4) Which of the following statements are true regarding the “Multilateral Convention to Implement Tax Treaties Related Measures”?

1. India has ratified the Treaty in 2019.

2. The multilateral convention is an outcome of the OECD project to tackle base erosion and profit shifting.

Select the correct answer using the code given below:

a) 1 only

b) 2 only

c) Both 1 & 2 only

d) None of the above

Explanation: In June 2019, India has ratified the Multilateral Convention to Implement Tax Treaty Related Measures (MLI) to Prevent Base Erosion and Profit Shifting (BEPS).

The MLI is aimed to prevent firms from moving profit out of the country.

It ensures that profits are taxed where substantive economic activities generating the profits are carried out.

The multilateral convention is an outcome of the OECD project to tackle base erosion and profit shifting.

This project was designed to work on anti-evasion measures that could curb tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations

Q.5) Consider the following statements with regards to the new railway line between Jaynagar in Bihar and Bardibas in Nepal:

1. This is Nepal's first-ever broad gauge passenger service.
2. The line has been built by Indian engineering major, IRCON.
3. The operations and maintenance of the line will be the responsibility of Konkan Railway Corporation Limited.

Options:

- a) 1 & 2 only
- b) 2 & 3 only
- c) 1 & 3 only

d) All of the above

Explanation: The railway line between Jaynagar in Bihar and Bardibas in Nepal is Nepal's first-ever broad gauge passenger service.

The line has been built by Indian engineering major, IRCON.

Indian Railway Construction Limited (IRCON) is under the ownership of Indian Railways, Ministry of Railways, Government of India.

The operations and maintenance of the line will be the responsibility of Konkan Railway Corporation Limited.

Q.6) With reference to E-2025 Initiative, consider the following statements:

1. It is a consortium of 110 companies globally.
2. These companies have pledged to become completely reliant on electric vehicles for operational needs by the year 2025.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Both the statements are incorrect. (Both the statements were about EV-100 initiative not E-2025 initiative) The E-2020 initiative was launched by WHO in 2017. Building on the successes of the E-2020, WHO has launched the E-2025 initiative. As part of this initiative, WHO has identified 25 countries that have the potential to eliminate malaria within a 5-year timeline.

Q.7) Which of the following countries participate in the multilateral maritime defense exercise Malabar along with India?

1. Japan
2. Australia
3. USA

Select the correct answer from the codes given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only

d) 1, 2 and 3

Explanation: Malabar is held between Japan Maritime Self Defence Force (JMSDF), Royal Australian Navy (RAN) and the United States Navy (USN).

Q.8) With reference to Indian Space Association (ISpA), consider the following statements:

1. It is the premier Industry association of both space and satellite companies.
2. ISRO is one of its founding members.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct

Statement 2 is incorrect: ISRO is not the founding member of ISpA.

Q.9) With reference to Heat waves, consider the following statements:

1. An increase in humidity will worsen the impact of a heat wave.
2. India does not recognize heat wave as a disaster under the Disaster Management Act.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Both statements are correct.

The presence of humidity in the environment prevents the thermoregulatory mechanism of evaporative cooling of the body through the process of perspiration, which can cause heat stress thus exacerbating the impact of a heat wave.

The Indian government does not recognize heat waves as potential threat to human lives. The National Disaster Management Act and the National Policy on Disaster Management do not include heat wave fatalities in their list of natural calamities and so no budgetary allocation is made to address the problem.

Q.10) With reference to High Ambition Coalition, consider the following statements:

1. It aims to promote an international agreement to protect at least 30 % of the of world's land and ocean by 2030 (30×30 target).
2. India is the first BRICS country to join the High Ambition Coalition.

Which of the statements given above is/are correct?

- a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Statement 1 is correct: The High Ambition Coalition for Nature and People was initiated at the “One Planet Summit” in Paris in January 2021. The coalition aims to promote an international agreement to protect at least 30 % of the of world's land and ocean by 2030 (30×30 target). Statement 2 is correct: At present, the group has more than 70 countries encouraging the adoption of the global goal to protect 30×30. The members of HAC currently include a mix of countries in the global north and south. These include European, Latin American, Africa and Asia countries are among the members. India is the first BRICS country to join the HAC.

October 13

Q.1) With reference to the Nutrient Based Subsidy Rates, consider the following statements:

1. Cabinet Committee on Economic Affairs (CCEA) has approved the proposal of the Department of Fertilizers for fixation of Nutrient Based Subsidy Rates for Phosphatic and Potassic fertilisers (P&K) for the year 2021-22.
2. The CCEA also approved the inclusion of Potash derived from Molasses under the Nutrient Based Subsidy Scheme.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Cabinet Committee on Economic Affairs (CCEA) has approved the proposal of the Department of Fertilizers for fixation of Nutrient Based Subsidy Rates for Phosphatic and Potassic fertilisers (P&K) for the year 2021-22.

The approved rate for Nutrient Based Subsidy (NBS) in case of Nitrogen has been fixed at 18.789 rupees per kilogram, for Phosphorus it is 45.323 rupees per Kg, for Potash 10.116 rupees per Kg and 2.374 rupees per Kilogram for Sulphur.

The total amount of rollover will be 28,602 crore rupees and a special one-time package of additional subsidy on Di-Ammonium Phosphate (DAP) at a tentative cost of 5,716 crore rupees has also been provided. The net subsidy required for the rabi season for 2021-22 will be 28,655 crore rupees after deducting savings.

The CCEA also approved the inclusion of Potash derived from Molasses under the Nutrient Based Subsidy Scheme.

It will give 438 rupees per bag benefit on Di-Ammonium Phosphate (DAP) and 100 rupees per bag benefit on NPK grades so as to maintain prices of these fertilizers affordable to the farmers.

Hence both statements are correct.

Q.2) With reference to the draft rules on plastic waste recycling, consider the following statements:

1. Producers of plastic would be obliged to declare to the government, via a centralised website, how much plastic they produce annually.
2. Companies would have to collect at least 35% of the target in 2021-22, 70% by 2022-23 and 100% by 2024.
3. In 2024, a minimum 50% of their rigid plastic (category 1) would have to be recycled as would 30% of their category 2 and 3 plastic.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3**

Explanation: The Environment Ministry has issued draft rules that mandate producers of plastic packaging material to collect all of their produce by 2024 and ensure that a minimum percentage of it be recycled as well as used in subsequent supply.

It has also specified a system whereby makers and users of plastic packaging could collect certificates — called Extended Producer Responsibility (EPR) certificates — and trade in them.

The notification was expected to come into force by December 6 and, as of now, was open to public feedback.

Only a fraction of plastic that cannot be recycled — such as multi-layered multi-material plastics — would be eligible to be sent for end-of-life disposal such as road construction, waste to energy, waste to oil and cement kilns.

Only methods prescribed by the Central Pollution Control Board (CPCB) would be permitted for their disposal.

Plastic packaging, as per the rules made public on October 6, fall into three categories.

The first is “rigid” plastic;

Category 2 is “flexible plastic packaging of single layer or multilayer (more than one layer with different types of plastic), plastic sheets and covers made of plastic sheet, carry bags (including carry bags made of compostable plastics), plastic sachet or pouches; and

The third category is called multilayered plastic packaging, which has at least one layer of plastic and at least one layer of material other than plastic.

Other features

Producers of plastic would be obliged to declare to the government, via a centralised website, how much plastic they produce annually. Companies would have to collect at least 35% of the target in 2021-22, 70% by 2022-23 and 100% by 2024.

In 2024, a minimum 50% of their rigid plastic (category 1) would have to be recycled as would 30% of their category 2 and 3 plastic.

Every year would see progressively higher targets and after 2026-27, 80% of their category 1 and 60% of the other two categories would need to be recycled.

If entities cannot fulfil their obligations, they would on a “case by case basis” be permitted to buy certificates making up for their shortfall from organisations that have used recycled content in excess of their obligation.

The CPCB would develop a “mechanism” for such exchanges on an online portal. Non-compliance would not invite a traditional fine. Instead an “environmental compensation” would be levied, though the rules do not specify how much this compensation would be.

Hence, option (d) is the correct answer.

Q.3) Consider the following statements:

1. India is the full-time member of International Energy Agency (IEA)
2. International Energy Agency (IEA) publishes World Energy Outlook

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only

- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: International Energy Agency (IEA) has invited India, the world’s third-largest energy consumer, to become its full-time member

In March 2017, India joined the IEA as an association country

It is a Paris-based body which advises industrialized nations on energy policies.

The International Energy Agency (IEA) is a Paris-based autonomous intergovernmental organization established in the framework of the Organization for Economic Co-operation and Development (OECD) in 1974 in the wake of the 1973 oil crisis.

It publishes World Energy Outlook.

Q.4) Which of the following is/are the major voluntary commitments called the Nationally Determined Contributions (NDC) made by India?

1. improving the emissions intensity of its GDP by 33 to 35% by 2030 below 2005 levels
2. increasing the share of non-fossil fuels-based electricity to 40 per cent by 2030
3. enhancing its forest cover, thereby absorbing 2.5 to 3 billion tonnes of carbon dioxide.

Which of the above statements is/are correct?

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Explanation: In 2015, ahead of the United Nations’ significant climate conference in Paris, India announced three major voluntary commitments called the Nationally Determined Contributions (NDC)

improving the emissions intensity of its GDP by 33 to 35 per cent by 2030 below 2005 levels;
increasing the share of non-fossil fuels-based electricity to 40 per cent by 2030, enhancing its

forest cover, thereby absorbing 2.5 to 3 billion tonnes of carbon dioxide.

India was the only major G20 country that was on track towards keeping to its nationally determined commitments to halt runaway global warming.

It had achieved 21% of its emissions intensity as a proportion of its GDP in line with its commitment to a 33-35% reduction by 2030

UK has urged India to announce a “more ambitious” Nationally Determined Contribution (NDC) ahead of a United Nations climate change summit in the U.K. in a few weeks.

What is a Nationally Determined Contribution (NDC)?

Nationally Determined Contributions (NDC) or Intended Nationally Determined Contributions (INDC) are non-binding national plans highlighting climate actions that governments aim to implement in response to climate change and as a contribution to achieve the global targets set out in the Paris Agreement.

Q.5) Consider the following statements:

1. U.N. Biodiversity Conference’s “30 by 30” is a plan to conserve 30% of Earth’s land and sea areas by 2030

2. It will be done through “area-based conservation measures” like protected national parks.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

Explanation: A key UN summit tasked with protecting biodiversity opened in China and online, as countries meet to protect ecosystems and prevent mass extinction weeks before the COP26 climate conference.

Up for debate is the “30 by 30” plan to give 30% of land and oceans protected status by 2030 through “area-based conservation measures” like protected national parks. — a measure supported

by a broad coalition of nations, as well as a goal to halve the use of chemicals in agriculture and stop creating plastic waste.

Q.6) With reference to OneWeb, which of the following statements is/are correct?

- 1. It is a Public Sector Undertaking (PSU) of the Government of India and commercial arm of the Indian Space Research Organisation (ISRO).
- 2. The main objective is to scale up industry participation in Indian space programmes.

Options:

- a) 1 only
- b) 2 only
- c) Both
- d) **None**

Explanation: OneWeb is a global communications company building a capability to deliver broadband satellite internet services worldwide by making use of low Earth orbit satellites.

Its objective is the provision of internet services from the satellite to the ground stations.

Q.7) With respect to International Energy Agency (IEA), which of the following statements is/are correct?

- 1. India is a founding member of the IEA.
- 2. Membership in the IEA is restricted to advanced economy members of the Organization for Economic Co-operation and Development (OECD).
- 3. The World Energy Outlook is published by IEA.

Options:

- a) 1 and 2 only
- b) 2 only
- c) **2 and 3 only**
- d) 1 and 3 only

Explanation: The IEA was founded in 1974 by industrialised countries – within the framework of the Organisation for Economic Co-operation and Development (OECD) – in response to the oil embargo.

It is a Paris based body that advises industrialised nations on energy policies.

IEA is made up of 30 member countries and eight associate nations.

India is not a member of the IEA. In March 2017, India became an associate member.

Membership in the IEA is restricted to advanced economy members of the Organization for Economic Co-operation and Development (OECD).

The World Energy Outlook is published by IEA.

Q.8) With reference to Palk Bay Scheme, consider the following statements:

1. It is a centrally sponsored scheme.
2. It is a scheme specific to only Tamil Nadu.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Both statements are correct.

Palk Bay Scheme is also known as Scheme for Diversification Of Trawl Fishing Boats From Palk Straits Into Deep Sea Fishing Boats. The scheme was launched by the Government of India in 2017 as a Centrally sponsored scheme.

It is a Tamil Nadu-specific scheme aimed at providing 2,000 vessels in three years to fishermen of the State and motivating them to abandon bottom trawling.

Q.9) Tiger Triumph is a tri-service military exercise between India and which other country?

- a) USA
- b) France
- c) Germany
- d) UK

Explanation: Tiger Triumph- It is a tri-service military exercise between India and the US.

Q.10) With reference to Global Minimum Corporate Tax, consider the following statements:

1. It will cover firms with global sales above 20 bn Euros (\$23 billion) and profit margins above 10%.
2. Recently 136 countries agreed to enforce a pact to impose a minimum corporate tax rate of 15%. India is yet to join this group.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: It will cover firms with global sales above 20 bn Euros (\$23 billion) and profit margins above 10%. A quarter of any profits above 10% is proposed to be reallocated to the countries where they were earned and taxed there. Statement 2 is incorrect: India with another 135 countries agreed to enforce a pact to impose a minimum corporate tax rate of 15%, and an equitable system of taxing profits of big companies in markets where they are earned. Kenya, Nigeria, Pakistan and Sri Lanka have not yet joined the deal.

October 14

Q.1) Recently seen in the news, UNSC Resolution 2593 is related to?

- a) Israel-Palestine issue
- b) Afghanistan issue**
- c) South China issue
- d) Rohingya issue

Explanation: India's call for shaping international response on the Afghan crisis along the conditions laid down in the UN Security Council Resolution 2593, and urged for preserving the gains of the last two decades in Afghanistan.

A unified international response based on UNSC Resolution 2593 is necessary to improve the situation in Afghanistan.

United Nations Security Council Resolution 2593 was adopted on August 30, 2021, following the fall of Kabul and the subsequent Taliban takeover in Afghanistan.

According to the resolution, the Security Council demands that Afghan territory not be used to threaten or attack any other country or to shelter and train terrorists. Crucially, Russia and China abstained from the vote.

UN resolutions are officially defined as the formal expressions of the opinion or the will of UN organs. UNSC resolutions carry weight and often act as the final comment on an issue by the global community, given the heft of its members and recognition of the body as one of the highest in international governance.

Q.2) With reference to the Indian Space Association (ISpA), consider the following statements:

- 1. It aims to contribute to the Indian govt's vision of making India Atmanirbhar & a global leader in the space arena
- 2. No Private players are involved in the Association.

Which of the statements given above is/are correct?

- a) 1 only**
- b) 2 only
- c) Both 1 & 2
- d) None of the Above

Explanation: Statement 1 is correct & Statement 2 is Incorrect:

The Indian Prime Minister recently launched the Indian Space Association (ISpA) - the premier industry association of space and satellite companies.

ISpA aims to contribute to the Government of India's vision of making India Atmanirbhar and a global leader in the space arena, which is fast emerging as the next growth frontier for mankind.

The association will engage with stakeholders across the ecosystem for the formulation of an enabling policy framework that fulfills the Government's vision.

ISpA will also work towards building global linkages for the Indian space industry to bring in critical technology and investments into the country to create more high-skill jobs.

ISpA is represented by leading homegrown and global corporations with advanced capabilities in space and satellite technologies. Its founding members include Bharti Airtel, Larson & Toubro, Nelco (Tata Group), OneWeb, Mapmyindia, Walchandnagar Industries, and Alpha Design Technologies. Other core members include Godrej, Hughes India, Ananth Technology Limited, Azista-BST Aerospace Private Limited, BEL, Centum Electronics, Maxar India.

Q.3) With reference to the Taiwan, consider the following statements:

- 1. It is located in Red Sea.
- 2. Taiwan observes October 10 ("double 10") as its national day.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**

- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Tensions between China and Taiwan have escalated since October 1, when China observes its National Day to mark the birth of the People's Republic of China (PRC).

Taiwan, earlier known as Formosa, a tiny island off the east coast of China, is where Chinese republicans of the Kuomintang government retreated after the 1949 victory of the communists — and it has since continued as the Republic of China (RoC).

Since its founding in 1949, the PRC has believed that Taiwan must be reunified with the mainland, while the RoC has held out as an “independent” country.

Taiwan observes October 10 — “double 10” — as its national day; it was on this day in 1911 that sections of the Manchu army rose in rebellion, leading ultimately to the overthrow of the Qing dynasty and the end of 4,000 years of the monarchy. The RoC was declared on December 29, 1911.

Key facts

The island is located in the East China Sea, to the northeast of Hong Kong, north of the Philippines and south of South Korea, and southeast of Japan.

Although largely unrecognised by other countries as such, self-ruled Taiwan sees itself as no less than an independent nation.

But Taiwan is entirely dependent on the US for its defence against possible Chinese aggression — and that is why every spike in military tensions between China and Taiwan injects more hostility in the already strained relationship between Washington and Beijing.

Hence only statement 2 is correct.

Q.4) With reference to the sodium-ion batteries, consider the following statements:

1. Sodium-ion batteries, which do not contain relatively costly lithium, cobalt or nickel, are one of the new technologies that battery makers are

looking at as they seek alternatives to the dominant lithium-ion model.

2. China's CATL (300750.SZ) in July became the first major automotive battery maker to unveil a sodium-ion battery.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Peat, plentiful in bogs in northern Europe, could be used to make sodium-ion batteries cheaply for use in electric vehicles, scientists at an Estonian university say.

Sodium-ion batteries, which do not contain relatively costly lithium, cobalt or nickel, are one of the new technologies that battery makers are looking at as they seek alternatives to the dominant lithium-ion model.

Scientists at Estonia's Tartu University say they have found a way to use peat in sodium-ion batteries, which reduces the overall cost, although the technology is still in its infancy.

The process includes heating decomposed peat to a high temperature in a furnace for 2-3 hours. The university expects the government to fund a small-scale factory in Estonia to try out the technology.

Distillers in Scotland dry malt over peat fires to flavour whisky, and some northern European countries use peat to fuel factories and households, or as fertilizer.

As bogs are drained to mine peat, they release trapped carbon dioxide, raising environmental concerns. But the Estonian scientists say they are using decomposed peat, a waste product of traditional extraction methods that is usually discarded.

China's CATL (300750.SZ) in July became the first major automotive battery maker to unveil a sodium-ion battery.

Hence both statements are correct.

Q.5) With reference to India, the terms Abujhmadia, Baiga, Birhors and Pahari Korwa pertain to

- a) tribal languages
- b) musical instruments
- c) tribal people**
- d) dance forms of Northeast India

Explanation: The Abujhmadia tribes reside in Narayanpur, Dantewada and Abujhmad areas of Bijapur district, Chhattisgarh. Orchha can be called the gateway to Abujhmad.

The Kamar tribes reside mainly in Gariaband, Chura, Mainpur in Gariaband district and Nagri and Magarlod development blocks of Dhamtari district.

Baiga is a special backward tribe of Chhattisgarh. In Chhattisgarh, their population in census 2011 shows 89744.

The Birhors are a special backward tribe of Chhattisgarh. Most of their population in the country resides in the state of Jharkhand.

Pahari Korwa, a special backward tribes reside in Jashpur, Surguja, Balrampur and Korba districts. According to the survey year 2005-06, their total population was 34122.

Q.6) Consider the following statements:

1. It is mandatory for producers of plastic packaging material to collect all of their produce by 2024.
2. Plastic that cannot be recycled, can be disposed only by the method prescribed by Central Pollution Control Board (CPCB)

Which of the above statements is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: The Environment Ministry has issued draft rules that mandate producers of

plastic packaging material to collect all of their produce by 2024 and ensure that a minimum percentage of it be recycled as well as used in subsequent supply.

It has also specified a system whereby makers and users of plastic packaging could collect certificates — called Extended Producer Responsibility (EPR) certificates — and trade in them.

Extended Producer Responsibility (EPR) is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products

Only a fraction of plastic that cannot be recycled — such as multi-layered multi-material plastics — would be eligible to be sent for end-of-life disposal such as road construction, waste to energy, and waste to oil and cement kilns. Only methods prescribed by the Central Pollution Control Board (CPCB) would be permitted for their disposal.

Plastic packaging as per the rules fall into three categories: The first is “rigid” plastic; category 2 is “flexible plastic packaging of single layer or multilayer, plastic sheets and covers made of plastic sheet, carry bags, plastic sachet or pouches; and the third category is called multilayered plastic packaging, which has at least one layer of plastic and at least one layer of material other than plastic.

Producers of plastic would be obliged to declare to the government, via a centralized website, how much plastic they produce annually. Companies would have to collect at least 35% of the target in 2021-22, 70% by 2022-23 and 100% by 2024.

Q.7) Consider the following statements:

1. The MRP of urea and non-urea fertilizer is statutorily fixed by the Government of India
2. Potassic fertilizers is the most popular fertilizer after urea

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: MRP of urea is statutorily fixed by the Government of India

Di-ammonium phosphate (DAP) is the most popular fertilizer after urea

Non-urea fertilizer prices are decontrolled, with the government fixing nutrient-based subsidy rates instead.

The Centre has approved an additional fertilizer subsidy for the rabi or winter planting season. The subsidy is paid to fertilizer companies as compensation for selling their products to farmers below market prices. Thus, the price a farmer pays for a 50-kg bag of di-ammonium phosphate (DAP), the most popular fertilizer after urea, would continue to remain at Rs. 1,200. The increased subsidy would offset the hike in global rates of DAP, nitrogen, phosphate and potassic fertilizers.

Q.8) Which of the following statements is correct about Immunisation Agenda 2030 or IA 2030 strategy?

- a) IA 2030 strategy put Vulnerable Castes at the center for immunisation.
- b) Strategy was launched on World Day for Cultural Diversity for Dialogue and Development.
- c) It intends the universal coverage of zero-dose children.
- d) The IA2030 is developed based on learnings from Global Vaccine Action Plan (GVAP).**

Explanation: The IA 2030 strategy—to extend the benefits of vaccines to everyone, everywhere—is underpinned by four core principles: it puts people in the centre, is led by countries, implemented through broad partnerships, and driven by data. The IA2030 strategy systematically applies the core principles across each of the strategic priorities.

The Immunisation Agenda 2030 (IA2030) launched during World Immunisation Week.

IA 2030 intends to reduce the number of zero-dose children by 50 per cent, according to the document released by the WHO, Unicef and Gavi, the Vaccine Alliance.

The IA2030 is based on learnings from Global Vaccine Action Plan (GVAP). It also aims to address the unmet targets of the GVAP that were initially to be fulfilled as part of the global immunisation strategy of the ‘Decade of vaccines’ (2011–2020).

Q.9) Net Zero Producers Forum’ on climate change was in news recently. It is focused on which of the following categories of countries?

- a) Major Vehicles producing companies
- b) Major Oil consuming countries
- c) Major Industrialized countries, account for more than half of total global production
- d) Major oil and gas producing countries**

Explanation: The Net Zero Producers Forum has been formed for the oil and gas producing countries. The Forum aims to discuss the ways to achieve net zero carbon emission targets to limit global warming.

The countries will also discuss ways to support the implementation of the Paris Agreement on Climate Change.

Strategies: The Forum will consider strategies and technologies which include

Methane abatement

Advancing the circular carbon economy approach

Development and deployment of clean energy and carbon capture and storage technologies,

Diversification from reliance on hydrocarbon revenues and

Other measures in line with each country’s national circumstances.

Q.10) Consider the following statements regarding the New Umbrella Entity (NUE),

1. Main purpose behind its creation is to break the monopoly of National Payments Corporation of India in the retail payment space
2. As per RBI guidelines, single promoter or group would not be allowed to hold more than 40% investment in the NUE

Which of the above statements is/are correct?

- a) Only 1
- b) Only 2
- c) Both 1 and 2**
- d) None of the above

Explanation: Statement 1 is correct: In February 2020, RBI proposed to create an alternative umbrella organisation for retail payments. This is to prevent the monopoly of the National Payment Corporation of India (NPCI). Presently NPCI is taking care of all retail payments systems in India.

Statement 2 is correct: The RBI in its framework mentioned certain guidelines for capital New Umbrella Entities. These are,

Capital: The pan-India new umbrella entity (NUE) or entities will focus on retail payment systems with a minimum paid-up capital of Rs 500 crore.

However, the RBI will not permit any single promoter or group to hold more than 40% investment in the NUE. Also, the NUE should maintain a minimum net worth of Rs. 300 crore at all times.

October 15

Q.1) Exercise YudhAbhyas is the largest running joint military training and defence cooperation endeavor between India and:

- a) U.S.A
- b) France
- c) Germany
- d) U.K

Explanation: As part of the ongoing Indo-US Defence Cooperation, the Joint Military Training Exercise “Ex Yudh Abhyas 2021” will be conducted at Joint Base Elmendorf Richardson, Alaska (USA) from 15 to 29 October 2021.

Exercise YudhAbhyas is the largest running joint military training and defence cooperation endeavor between India and USA.

This will be the 17th Edition of the joint exercise which is hosted alternately between both countries.

The previous version of this exercise was held at Mahajan Field Firing Ranges in Bikaner, Rajasthan in February 2021.

Hence, option (a) is the correct answer.

Q.2) “Vishwakarma Vatika”, recently seen in news, is an initiative of which of the following union Ministry?

- a) Ministry of Fisheries, Animal Husbandry and Dairying
- b) Ministry of Youth Affairs and Sports
- c) Ministry of Consumer Affairs, Food and Public Distribution
- d) Ministry of Minority Affairs

Explanation: Union Minister for Minority Affairs announced that “Vishwakarma Vatika” will be set up at “Hunar Haats”, to promote and preserve precious traditional skills of artisans and craftsmen where they will also be displaying live how India’s traditional exquisite and elegant indigenous handmade products are made.

The first such “Vishwakarma Vatika”, which has been set up in “Hunar Haat” at Rampur, Uttar

Pradesh to protect, preserve and promote India’s glorious legacy of centuries-old skills and craftsmanship, will be inaugurated by Union Minister for Education and Skill Development and Entrepreneurship Shri Dharmendra Pradhan on 16th October, 2021

Proficient craftsmen, sculptors, stonemasons, blacksmiths, carpenters, potter and other artisans from across the country, will give live demonstrations of hundreds of India’s traditional art and craft at one place in these "Vishwakarma Vatika".

Hence, option (d) is the correct answer.

Q.3) With reference to the UN Human Rights Council, consider the following statements:

1. It consists of 97 Member States elected directly and individually by secret ballot by the majority of the members of the UN General Assembly.
2. The members of the Council shall serve for a period of three years and shall not be eligible for immediate re-election after two consecutive terms.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: India has been re-elected to the UN Human Rights Council (2022-24) for a record 6th term with an overwhelming majority and vowed to continue to work for the promotion and protection of Human Rights through "Samman, Samvad and Sahyog."

India's current term was set to end on December 31 2021.

The UN General Assembly elected by secret ballot Argentina, Benin, Cameroon, Eritrea, Finland, Gambia, Honduras, India, Kazakhstan, Lithuania, Luxembourg, Malaysia, Montenegro, Paraguay, Qatar, Somalia, UAE and the US.

The United States, which had quit the council in 2018 under the previous Donald Trump's regime,

was reelected to the global rights body for a period of three-and-a-half years.

UN Human Rights Council is an inter-governmental body within the United Nations system which consists of 47 Member States elected directly and individually by secret ballot by the majority of the members of the General Assembly.

The members of the Council shall serve for a period of three years and shall not be eligible for immediate re-election after two consecutive terms.

The membership is based on equitable geographical distribution, and seats are distributed among regional groups Group of African States (13), Group of Asia-Pacific States (13), Group of Eastern European States (6), Group of Latin American and Caribbean States (8) and Group of Western European and other States (7).

Hence only statement 2 is correct.

Q.4) Mangalyaan, India's Mars Orbiter Mission spacecraft has completed seven earth years in its orbit in 2021. In this regard consider the following statements:

1. According to ISRO, the spacecraft has successfully covered three Martian years.
2. A Martian year is equivalent to approximately 687 Earth days or 1.88 Earth years.
3. India is the first country to have entered the Martian orbit in its first attempt.

Which of the above statements is/are correct?

- a) 1 and 3 only
- b) 2 only
- c) 1 only

d) 1, 2 and 3

Explanation: Mangalyaan, India's Mars Orbiter Mission spacecraft has completed seven earth years in its orbit in 2021.

According to ISRO officials, the spacecraft has successfully covered three Martian years.

Mangalyaan, ISRO's maiden interplanetary mission, was launched from the Sriharikota spaceport on November 5, 2013.

The orbiter got inserted into Martian orbit on September 24, 2014 in its first attempt, making India the first Asian country to have successfully launched its Mars orbiter mission and also the first country to have entered the Martian orbit in its first attempt.

An important conclusion of the mission has been the finding that dust storms on the Martian can rise up to hundreds of kilometres.

Built at a cost of Rs. 4.5 billion, Mangalyaan is hailed for being much cheaper than NASA's Maven Orbiter, which was similar to India's Mars mission.

What are Martian years?

It is one of several units for timekeeping on Mars. A sol is slightly longer than an Earth day. It is approximately 24 hours, 39 minutes, 35 seconds long. A Martian year is approximately 668 sols, equivalent to approximately 687 Earth days or 1.88 Earth years.

Q.5) Recently seen in the news, Kunming Declaration is related to?

- a) Biodiversity Conservation
- b) Women Empowerment
- c) Road Safety
- d) Crude oil Price Stability

Explanation: The Kunming Declaration was adopted by over 100 countries on October 13, 2021, at the first part of the ongoing virtual 15th meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity.

It calls upon the parties to "mainstream" biodiversity protection in decision-making and recognizes the importance of conservation in protecting human health.

By adopting this, the nations have committed themselves to support the development, adoption, and implementation of an effective post-2020

implementation plan, a capacity-building action plan for the Cartagena Protocol on biosafety.

The theme of the declaration is Ecological Civilization: Building a Shared Future for All Life on Earth.

Signatory nations will ensure that the post-pandemic recovery policies, programmes, and plans contribute to the conservation and sustainable use of biodiversity, promoting sustainable and inclusive development.

The UN Biodiversity Conference began on October 11, 2021, and will conclude on October 24. It was originally scheduled to take place from 15-28 October 2020 in Kunming, China but was postponed several times due to the novel coronavirus disease (COVID-19) pandemic.

The signed declaration will be submitted to the General Assembly of the United Nations, the 2022 High-Level Political Forum on Sustainable Development, and the United Nations Environment Assembly at the second part of the ongoing session in Kunming, China from 25 April-8 May 2022.

Q.6) Recently seen in the news, which of the following released Global Hunger Index 2021?

- a) FAO & UNEP
- b) Fight Hunger Club
- c) Amnesty International
- d) Concern Worldwide & Welt Hunger Hilfe

Explanation: The Global Hunger Index 2021 prepared jointly by Irish aid agency Concern Worldwide and German organization Welt Hunger Hilfe, mentioned the level of hunger in India as “alarming” with its GHI score decelerating from 38.8 in 2000 to the range of 28.8 – 27.5 between 2012 and 2021.

India has slipped to the 101st position among 116 countries in the Global Hunger Index (GHI) 2021 from its 2020 ranking (94), to be placed behind Pakistan, Bangladesh, and Nepal.

With this, only 15 countries — Papua New Guinea (102), Afghanistan (103), Nigeria (103), Congo (105), Mozambique (106), Sierra Leone

(106), Timor-Leste (108), Haiti (109), Liberia (110), Madagascar (111), Democratic Republic of Congo (112), Chad (113), Central African Republic (114), Yemen (115) and Somalia (116) — fared worse than India this year.

A total of 18 countries, including China, Kuwait, and Brazil, shared the top rank with a GHI score of less than five, the GHI website that tracks hunger and malnutrition across countries said on Thursday.

The GHI score is calculated on four indicators — Undernourishment;

Child wasting (the share of children under the age of five who have low weight for their height, reflecting acute undernutrition);

Child stunting (children under the age of five who have low height for their age, reflecting chronic undernutrition);

Child mortality (the mortality rate of children under the age of five).

Q.7) With reference to National Human Right Commission (NHRC), consider the following statements:

1. It has the powers of criminal court and can grant interim relief.
2. Its recommendations are binding on the government.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Statement 1 is incorrect: It has the powers of criminal court and can grant interim relief. It also has the authority to recommend payment of compensation or damages. Statement 2 is incorrect: NHRC can only make recommendations, without the power to enforce decisions.

Q.8) With reference to Green Grid Initiative- One Sun One World One Grid’, consider the following statements:

1. It aims to build global consensus about sharing solar resources.
2. It is launched by Ministry of Power and New and Renewable Energy (MNRE).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: The plan focuses on a framework for facilitating global cooperation, building a global ecosystem of interconnected renewable energy resources (mainly solar energy) that can be seamlessly shared. Statement 2 is correct: It is launched by MNRE.

Q.9) Climate Resilience Information System and Planning (CRISP-M) tool is related to which of the following scheme/program?

- a) Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)
- b) Swachh Bharat Mission-Urban 2.0
- c) Atal Mission for Rejuvenation and Urban Transformation 2.0.
- d) Jal Jeevan Mission

Explanation: Union Minister of Rural Development & Panchayati Raj has recently launched a Climate Resilience Information System and Planning (CRISP-M) tool for integration of climate information in Geographic Information System (GIS) based watershed planning under Mahatma Gandhi NREGA. The CRISP-M tool will help embed climate information in the GIS based planning and implementation of Mahatma Gandhi NREGS.

Q.10) Which of the following statements is/are correct?

1. The Border Security Force (BSF) is the designated border guarding force for all the international borders of India.
2. It falls under the administrative control of the Ministry of Defence.
3. Recently, its jurisdiction has been set up to 10kms from the international border.

Options:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only

***d) None of the above**

Explanation: The Border Security Force (BSF) is one of the five Central Armed Police Forces of the Union of India.

It is India’s border guarding organisation on its border with Pakistan and Bangladesh.

It falls under the administrative control of the Ministry of Home Affairs.

In 2021, amendments have been made on the jurisdiction of the Border Security Force (BSF) to exercise its powers in states where it guards the international border. It outlines the new jurisdiction as “whole of the area comprised in the States of Manipur, Mizoram, Tripura, Nagaland and Meghalaya and Union Territories of Jammu and Kashmir and Ladakh and so much of the area comprised within a belt of 50 kilometers in the States of Gujarat, Rajasthan, Punjab, West Bengal and Assam, running along the borders of India”.

October 16

Q.1) Recently seen in the news, *Platyomia kohimaensis* is related to?

- a) Fish species
- b) Butterfly species
- c) **Cicada species**
- d) Turtle species

Explanation: Scientists had found a new cicada species *Platyomia kohimaensis* in the Naga Hills, Nagaland almost after a century. “No new cicada was discovered after those found by British entomologists in the Naga Hills in the early 1900s.

The discovery was published in the *Zootaxa* journal on September 28, 2021. Naga hills, which lie within the Indo-Burma biodiversity hotspot.

The collection site of *Platyomia kohimaensis* was a semi-disturbed forest patch, with human activities as evident nearby in the form of farming and agricultural land.

The main threat to many cicada species is their rapidly diminishing natural habitat, where they live and breed, according to experts. “In the North East, clearing of forest land and wildfires kill many nymphs underground.

Cicadas are hemipteran insects known for their loud, complex, and species-specific acoustic signals or songs. The generic diversity of cicadas in India and Bangladesh ranks the highest in the world, followed by China. Most cicadas are canopy dwellers and are found in natural forests with large trees.

The periodical cicada *Chremistica ribhoi* (locally called niangtaser and popular as ‘world cup cicada’) described in 2013 is confined to areas surrounding the Nongkhylllem Wildlife Sanctuary in Meghalaya, extending north up to Jirang block in Ri Bhoi district bordering Assam. The habitat cuts through Patharkmah and Warmasaw villages and Mawden Forest.

Q.2) Recently seen in the news, the Global TB report released by?

- a) UNDP
- b) WEF
- c) World Bank
- d) **WHO**

Explanation: The COVID-19 pandemic has reversed years of global progress in tackling tuberculosis and for the first time in over a decade, TB deaths have increased, according to the 2021 Global TB report released recently by the World Health Organization (WHO).

Worse, India (41%) was on the list of countries that topped those that contributed most to the global reduction in TB notifications between 2019 and 2020. India along with Indonesia (14%), the Philippines (12%), China (8%), and 12 other countries accounted for 93% of the total global drop in notifications.

The WHO estimated that some 4.1 million people currently suffer from TB but had not been diagnosed with the disease or had not officially reported to national authorities. This figure is up from 2.9 million in 2019.

Q.3) Recently GI tagged Karuppur kalamkari paintings and the Kallakurichi wood carvings are from which of the following state?

- a) Kerala
- b) **Tamil Nadu**
- c) Karnataka
- d) Andhra Pradesh

Explanation: Tamil Nadu’s Karuppur kalamkari paintings and the Kallakurichi wood carvings are the latest artistic creation to have earned the distinction of geographical indication (GI) tags. The artistic creations are both traditional as in the sense they are made on a cotton cloth piece with pens and brushes made up of bamboo tree and coconut tree stems. The wood carving is characterized by traditional designs drawn on temple-related items and furniture.

Tamil Nadu Handicrafts Development Corporation (Poompuhar) moved the application to register the Karuppur kalamkari paintings for the GI tag. The tag for the Kallakurichi wood

carvings was jointly applied by the Kallakurichi Wood Carving Handicrafts Industrial Cooperative Limited Society and the Chinnasalem and Vriksha Association of Wood Carving Artisans self-help group.

Dyes for the cloth are always extracted from naturally color-producing agents such as roots, leaves, and mineral salts of iron, tin, copper, and alum. The usage of cow dung, seeds of various kinds, plants, and crushed flowers are also used to get effects in the paintings. Originally the kalamkari art specifically depicted Hindu epics tales of Ramayana and Mahabharata but in recent times the Kalamkari technique is also used to depict Buddha and Buddhist art forms.

Q.4) Which institution releases the ‘Fiscal Monitor’ Report?

- a) World Bank
- b) Reserve Bank of India
- c) International Monetary Fund**
- d) Reserve Bank of India

Explanation: As per the International Monetary Fund’s ‘Fiscal Monitor’ Report, the global debt has jumped to a new high of USD 226 trillion. Advanced economies and China contributed more than 90 per cent to the accumulation of world-wide debt in 2020.

India’s debt increased from 68.9 per cent of its GDP in 2016 to 89.6 per cent in 2020. It is projected to jump to 90.6 per cent in 2021. The debt of governments, households and non-financial corporations added up to USD 226 trillion in 2020. This is the highest increase on record.

Q.5) As per Government’s recent notification released in 2021, what is the gestational limit for termination of pregnancy?

- a) 12 weeks
- b) 18 weeks
- c) 20 weeks
- d) 24 weeks**

Explanation: As per the government’s new rules, the gestational limit for termination of a pregnancy in India has been increased to 24 weeks. Earlier the limit was 20 weeks.

Under the Medical Termination of Pregnancy (Amendment) Rules, 2021, the women including survivors of sexual assault, rape or incest, minors, those whose marital status changes during pregnancy (widowhood and divorce) and those with physical disabilities are included for the new limit.

Q.6) Which animal species is also called as ‘Dhole’?

- a) Asiatic Wild Dog**
- b) Hyena
- c) Aardwolf
- d) African Elephant

Explanation: The ‘Dhole’ (*Cuon alpinus*) is an animal native to Central, South, East, and Southeast Asia. Other names for the species include Asiatic wild dog, Indian wild dog, whistling dog, red dog, and mountain wolf. It is a Schedule II species under the Wildlife (Protection) Act, 1972.

A recent study has identified 114 priority tehsils where habitats can be consolidated to enhance population connectivity for the dhole or Asiatic Wild Dog. The animals are found in three clusters across India namely the Western and Eastern Ghats, central Indian landscape and North East India.

Q.7) Consider the following statements about ‘PM Gati Shakti Scheme’:

1. The aim of the scheme is to coordinate planning and execution of infrastructure projects to bring down logistics costs.
2. It aims to develop industrial corridors and extend 4G connectivity to all villages.

Which of the above statements is/are correct?

- a) 1 only

b) 2 only

c) **Both 1 and 2**

d) Neither 1 nor 2

Explanation: The ambitious Gati Shakti scheme or National Master Plan for multi-modal connectivity Plan was launched by Government of India with the aim of coordinated planning and execution of infrastructure projects to bring down logistics costs. Hence, statement 1 is correct.

The Gati Shakti scheme will subsume the Rs 110 lakh crore National Infrastructure Pipeline that was launched in 2019.

It also aims to have 11 industrial corridors and two new defence corridors -- one in Tamil Nadu and other in Uttar Pradesh. Moreover, Extending 4G connectivity to all villages and adding 17,000 kms to the gas pipeline network is being planned. Hence, statement 2 is correct.

Q.8) Which of the following statements is/are correct?

1. Extended Producer Responsibility (EPR) is a policy approach related to waste management.

2. Under this policy, producers are given significant responsibility for the treatment or disposal of post-consumer products.

3. India is opposed to this policy and it is limited to European countries.

Options:

a) 1 only

b) **1 and 2 only**

c) 2 and 3 only

d) 1, 2 and 3

Explanation: Extended Producer Responsibility (EPR) is a policy approach related to waste management.

Under this policy, producers are given significant responsibility for the treatment or disposal of post-consumer products.

The Environment Ministry has issued draft rules that mandate producers of plastic packaging material to collect all of their produce by 2024 and ensure that a minimum percentage of it be recycled.

Q.9) With reference to the recent developments in science, which one of the following statements is not correct?

a) **Functional chromosomes can be created by joining segments of DNA taken from cells of different species.**

b) Pieces of artificial functional DNA can be created in laboratories.

c) A piece of DNA taken out from an animal cell can be made to replicate outside a living cell in a laboratory.

d) Cells taken out from plants and animals can be made to undergo cell division in laboratory petri dishes.

Explanation: Functional chromosomes cannot be created by joining segments of DNA taken from cells of different species.

Pieces of artificial functional DNA can be created in laboratories. It is Artificial Gene Synthesis or DNA Printing.

A piece of DNA taken out from an animal cell can be made to replicate outside a living cell in a laboratory. It is cloning.

Cells taken out from plants and animals can be made to undergo cell division in laboratory petri dishes. It is called tissue culture.

Q.10) Consider the following statements regarding the Global Climate Risk Index 2021:

1. It is released by the World Meteorological Organisation (WMO).

2. It ranks countries on the basis of their preparedness against weather-related hazards.

3. India has ranked among the 5 worst affected countries for consecutively two years.

4. The index calculates the impact of weather-related events in terms of both fatalities and economic losses.

Which of the statements given above is/are correct?

a) 1 and 2 only

b) 3 and 4 only

c) 4 only

d) 1, 2 and 3

Explanation: The international environmental think tank 'Germanwatch' released the Global Climate Risk Index 2021. Hence, statement 1 is not correct.

This is the 16th Edition of the Index. It is published annually.

The most recent data available for 2019 and from 2000 to 2019 were taken into account.

The Index analyses the extent to which countries and regions have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.). Hence, statement 2 is not correct.

The impact is calculated in terms of fatalities and economic losses, both. Hence, statement 4 is correct.

Impacts from extreme-weather events hit the poorest countries hardest as these are particularly vulnerable to the damaging effects of a hazard, have a lower coping capacity and may need more time to rebuild and recover.

High-income countries are also getting severely impacted by climate change.

India has improved its rankings from last year. It is ranked 7th in the 2021 Index as compared to 5th in 2020 Index. Hence, statement 3 is not correct.

The Indian monsoon lasted a month longer than usual in the year 2019, with surplus rains causing major hardship.

The rain was 110% of normal, which is the most since 1994.

India was hit by a total of 8 tropical cyclones, of which, Cyclone Fani (May, 2019) caused the maximum damage.

Hence, option C is correct.

October 18

Q.1) With reference to the OneWeb, consider the following statements:

1. It is a global communications company building a capability to deliver broadband satellite internet services worldwide.
2. The company is headquartered in Beijing.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Bharti Enterprises chairman Sunil Mittal said that the Bharti-backed OneWeb, which already had 322 satellites in orbit, will use India-built PSLV (Polar Satellite Launch Vehicle) and the heavier GSLV-MkIII (Geosynchronous Satellite Launch Vehicle) as potential platforms to launch OneWeb's satellites in India from 2022.

OneWeb had entered into an arrangement through Letter of Intent with NewSpace India Ltd. the commercial arm of the Indian Space Research Organisation (ISRO), to use PSLV and the GSLV-MkIII as potential platforms to launch OneWeb's satellites in India from 2022.

OneWeb (legally Network Access Associates Ltd) is a global communications company building a capability to deliver broadband satellite internet services worldwide.

The company is headquartered in London.

The company was founded by Greg Wyler in 2012 and launched its first satellites in February 2019.

It entered bankruptcy in March 2020 but emerged from the bankruptcy proceedings and reorganization in November 2020 with a new ownership group, led by the Government of the United Kingdom and Indian multinational company Bharti Global, each holding 42% of the company equity and board.

Hence only statement 1 is correct.

Q.2) With reference to Global Hunger Index (GHI) ranks, consider the following statements:

1. GHI ranks are based on the values of the four indicators – undernourishment, child wasting, child stunting and child mortality.
2. India is ahead of most of the neighbouring countries like Pakistan, Nepal and Bangladesh in GHI 2021 ranking.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Global Hunger Index ranks India at 101 out of 116 countries

India is also among the 31 countries where hunger has been identified as serious. India ranked 94 among 107 countries in the Global Hunger Index (GHI) released last year.

India was also behind most of the neighbouring countries. Pakistan was placed at 92 rank, Nepal at 76 and Bangladesh also at 76.

The Index tracks key indicators used to measure progress toward Zero Hunger by 2030 at national, regional, and global levels. Based on the values of the four indicators – undernourishment, child wasting, child stunting and child mortality- the GHI determines hunger on a 100-point scale, where 0 is the best possible score (no hunger) and 100 is the worst. Each country's GHI score is classified by severity, from low to extremely alarming.

Somalia has the highest level of hunger according to the 2021 GHI ranking — its GHI score of 50.8 is considered extremely alarming. It is preceded by five countries with levels of hunger that are alarming — Central African Republic, Chad, Democratic Republic of the Congo, Madagascar, and Yemen — and 31 countries that have serious levels of hunger.

Q.3) India gets re-elected to U.N. Human Rights Council for 2022-24 term. In this regard, consider the following statements:

1. The members of the Council shall serve for a period of three years
2. The members of the Council are not be eligible for immediate re-election after three consecutive terms.

Which of the above statements is/are not correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: India gets re-elected to U.N. Human Rights Council for 2022-24 term

India got 184 votes in the 193-member assembly, while the required majority was 97

The United Nations Human Rights Council (UNHRC) is a United Nations body whose mission is to promote and protect human rights around the world. The Council has 47 members elected for staggered three-year terms on a regional group basis. The headquarters of the Council is in Geneva, Switzerland.

The members of the Council shall serve for a period of three years and shall not be eligible for immediate re-election after two consecutive terms.

The membership is based on equitable geographical distribution, and seats are distributed among regional groups Group of African States (13), Group of Asia-Pacific States (13), Group of Eastern European States (6), Group of Latin American and Caribbean States (8) and Group of Western European and other States (7).

Q.4) The Union Home Ministry has enhanced the powers of the BSF to “arrest, search and seize” within 50 km from the international boundary in Assam, West Bengal and Punjab. In this regard, consider the following statements:

1. After a suspect has been detained or a consignment seized within the specified area, the BSF can only conduct preliminary questioning.

2. The suspect should be handed to the local police within 48 hours.

3. The BSF does not have the powers to prosecute crime suspects.

Which of the above statements is/are correct?

- a) 1 and 3 only**
- b) 2 only
- c) 1 only
- d) 1, 2 and 3

Explanation: The Union Home Ministry has enhanced the powers of the Border Security Force (BSF) to “arrest, search and seize” within 50 km from the international boundary in Assam, West Bengal and Punjab. Such operational powers of the BSF, a Central armed police force under the Union, will also be applicable to the newly created Union Territories of Jammu and Kashmir and Ladakh,

Earlier, the BSF’s limit was fixed up to 80 km from the international boundary in Gujarat and 15 km in Rajasthan, Punjab, West Bengal and Assam.

The October 11 notification replaces a 2014 order under the BSF Act, 1968, which also covered the States of Manipur, Mizoram, Tripura, Nagaland and Meghalaya.

After a suspect has been detained or a consignment seized within the specified area, the BSF can only conduct “preliminary questioning” and has to hand over the suspect to the local police within 24 hours. The BSF does not have the powers to prosecute crime suspects.

Q.5) With reference to the International Monetary and Financial Committee meeting, consider the following statements:

1. The IMFC meets twice a year, once during the Fund-Bank Spring Meetings in April, and again during the Annual Meetings in October.

2. The Committee discusses matters of common concern affecting the global economy and advises the IMF on the direction of its work.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Union Minister for Finance & Corporate Affairs Nirmala Sitharaman attended the Plenary Meeting of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund (IMF) at the Annual Meetings 2021 held in Washington D.C. on 14th October 2021.

The meeting was attended by Governors/Alternate Governors representing 190-member countries of the IMF.

The discussions at the meeting centered on “vaccinate, calibrate and accelerate” which is the theme of the Managing Director's Global Policy Agenda.

The members of the IMFC elaborated the actions and measures taken by member countries to combat COVID-19 and facilitate economic recovery.

About IMFC Meetings

The IMFC meets twice a year, once during the Fund-Bank Spring Meetings in April, and again during the Annual Meetings in October.

The Committee discusses matters of common concern affecting the global economy and advises the IMF on the direction of its work.

Hence both statements are correct.

Q.6) Which of the following country's military has carried out its first-ever test of a “nuclear capable hypersonic missile”?

- a) India
- b) Pakistan
- c) South Korea
- d) China**

Explanation: China's military has carried out its first-ever test of a “nuclear capable hypersonic missile”, according to a report on October 17.

The missile in August “circled the globe before speeding towards its target, demonstrating an advanced space capability that caught U.S. intelligence by surprise.”

The Chinese military launched a rocket that carried a hypersonic glide vehicle “which flew through low-orbit space before cruising down towards its target.”

The missile “missed its target by about two-dozen miles”, but it “showed that China had made astounding progress on hypersonic weapons and was far more advanced than U.S. officials realised.”

Only the U.S., Russia and China were developing hypersonic glide vehicles, that are launched on rockets and then orbit the earth on their own speed. They are difficult to track because unlike ballistic missiles, they “do not follow the fixed parabolic trajectory”.

The test would post a big challenge to U.S. missile defence systems because “the weapon could, in theory, fly over the South Pole.” “That would pose a big challenge for the U.S. military because its missiles defence systems are focused on the northern polar route,” the report said.

Hence, option (d) is the correct answer.

Q.7) Consider the following statements:

1. Parivahan/Vahan is web-based software developed and controlled by the National Informatics Centre.
2. State Motor Vehicles authority is entitled to blacklist a vehicle or incorporate the details of any crime in which a vehicle is involved on the Parivahan portal.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Parivahan – Sewa project was the flagship project initiated by the Centre in the light of a new amendment to rule 139 of the Central Motor Vehicles Rules, 1989, which validated the electronic form of motor vehicle documents.

The web-based software, called Parivahan/Vahan, developed by the National Informatics Centre and controlled by the Centre Road Transport Ministry consisted of numerous modules and one such module is ‘Blacklist’, which includes the vehicle numbers and licence numbers having audit objections, complaints, court cases and check reports.

The provisions incorporated in the Central Motor Vehicles Rules, 1989 ensured that sufficient details were included on the portal so as to caution the public at large in respect of the vehicle involved in any crime or cases.

Q.8) Consider the following statements:

1. In order to stabilize global warming at any level, emissions of carbon dioxide, the main greenhouse gas, need to be reduced.
2. In sectors such as agriculture and aviation, bringing emissions to zero may not be possible.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: In order to stabilize global warming at any level, emissions of carbon dioxide, the main greenhouse gas, need to be eliminated; reducing them is not enough. Other greenhouse gases such as methane also need to be constrained.

However, in sectors such as agriculture and aviation, bringing emissions to zero may not be possible. Therefore, the only approach is to draw sufficient greenhouse gases from the atmosphere

to balance out emissions that remain – so that emissions reach ‘net zero’.

If negative emissions and positive emissions are balanced, global warming should stabilise. Currently the only greenhouse gas for which negative emissions are feasible at scale is carbon dioxide.

Q.9) The first stage in making a GM plant requires transfer of DNA into a plant cell. In this regard, consider the following statements:

1. On rare occasions, the process of DNA transfer can happen without deliberate human intervention.
2. Mutational breeding, genome editing etc. are some of the ways to change the genomes of crops.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Karnataka is witnessing a fresh round of opposition to Genetically Modified (GM) crops and technology with various groups comprising farmers, organic farming associations, and experts petitioning the government against issuing no-objection certificate (NOC) to a private company to carry out restricted field trials of Bt cotton and Bt maize.

On rare occasions, the process of DNA transfer can happen without deliberate human intervention. For example, the sweet potato contains DNA sequences that were transferred thousands of years ago, from *Agrobacterium* bacteria into the sweet potato genome.

Q.10) With reference to the Sustainable Development Goals (SDGs) 3 Targets, consider the following statements:

1. Reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.

2. Halve the number of global deaths and injuries from road traffic accidents by 2020.

3. Reduce by one third premature mortality from non-communicable diseases by 2030.

Which of the statements given above is/are not correct?

a) 1 only

b) 1 and 2 only

c) 2 and 3 only

d) 1, 2 and 3

Explanation: The new rules under Medical Termination of Pregnancy (Amendment) Act, 2021 will contribute towards ending preventable maternal mortality to help meet the Sustainable Development Goals (SDGs) 3.1, 3.7 and 5.6.

SDG 3.1 pertains to reducing maternal mortality ratio whereas SDGs 3.7 and 5.6 pertain to universal access to sexual and reproductive health and rights.

The Sustainable Development Goals (SDGs) 3 aims to achieve universal health coverage that seeks equitable access of healthcare services to all men and women. It proposes to end the preventable death of newborns, infants and children under five (child mortality) and end epidemics.

SDG 3 targets are:

By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births. Hence, statement 1 is correct.

By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. Hence, statement 3 is correct.

Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

By 2020, halve the number of global deaths and injuries from road traffic accidents. Hence, statement 2 is correct.

By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

October 19

Q.1) With reference to the Arctic ice, consider the following statements:

1. According to a new study, if carbon emissions continue at current levels, summer ice will disappear by 2100.
2. Melting of arctic ice is also detrimental to creatures such as seals and polar bears.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: According to a new study, If carbon emissions continue at current levels, summer ice will disappear by 2100 — and, along with it, creatures such as seals and polar bears.

In winter, most of the Arctic Ocean surface freezes, and scientists expect this to continue for the foreseeable future, even as climate warms.

In summer, when some of the ice melts, winds and currents carry it for great distances — some of it into the North Atlantic, but much of it into the Arctic's farthest-north coasts, along Greenland and the Canadian islands.

This results in a rich marine ecosystem. On the Arctic ice, algae bloom. These feed tiny animals, which in turn feed fish, which in turn feed seals, which feed polar bears at the top of the chain.

The irregular topography also helps create lairs for seals, and ice caves for polar bears during the winter.

But with a warming climate, summer sea ice has been shrinking fast, and now consistently spans less than half the area it did in the early 1980s.

Hence both statements are correct.

Q.2) Allium negianum, a new plant species discovered in:

- a) Uttarakhand**

- b) Arunachal Pradesh
- c) Sikkim
- d) Kerala

Explanation: A plant discovered in Uttarakhand in 2019 has been newly confirmed as a new species of Allium — the genus that includes many staple foods such as onion and garlic, among 1,100 species worldwide. The new species is described in journal PhytoKeys.

In 2019, Dr Anjula Pandey, Principal Scientist at ICAR-National Bureau of Plant Genetic Resources in New Delhi, together with scientists Drs K Madhav Rai, Pavan Kumar Malav and S Rajkumar, came across plants of this onion species, which they have named Allium negianum, in the border area of Malari village, in Chamoli district of Uttarakhand.

It grows at 3,000 to 4,800 m above sea level and can be found along open grassy meadows, sandy soils along rivers, and streams forming in snow pasture lands along alpine meadows, where the melting snow helps carry its seeds to more favourable areas.

With a narrow distribution, this newly described species is restricted to the region of western Himalayas and hasn't yet been reported from anywhere else in the world.

The scientific name Allium negianum honours the late Dr Kuldeep Singh Negi, an explorer and Allium collector.

Although new to science, this species has long been known under domestic cultivation to local communities. So far only known from the western Himalaya region, Allium negianum might be under pressure from people looking to taste it.

Hence, option (a) is the correct answer.

Q.3) With reference to the informal workers, consider the following statements:

1. The Supreme Court has recently held that part-time employees are not entitled to seek regularisation as they are not working against any sanctioned post in the Government.

2. Informal sector employs around 40 per cent of the labour force and produces about 20 per cent of GDP.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: The Supreme Court has held that part-time employees are not entitled to seek regularisation as they are not working against any sanctioned post in the Government.

A Bench of Justices M.R. Shah and A.S. Bopanna clarified in a recent judgment that there cannot be any permanent continuance of part-time temporary employees.

It is further observed that mere continuance every year of seasonal work during the period when work was available does not constitute a permanent status.

It was a settled proposition of law, that regularisation could be only as per the policy declared by the State/Government and “nobody can claim the regularisation as a matter of right”.

Informal sector employs around 80 per cent of the labour force and produces about 50 per cent of GDP.

Hence only statement 1 is correct.

Q.4) Frequently in news OPEC, which among the following are the members of the group?

a) Saudi Arabia, Iraq, Kuwait & Kazakhstan

b) Congo, Angola, Gabon & Algeria

c) Nigeria, Libya, Iran & Brazil

d) Saudi Arabia, UAE, Yemen & Kuwait.

Explanation: OPEC, which describes itself as a permanent intergovernmental organization, was created in Baghdad in September 1960 by founding members Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela.

The headquarters of the organization are in Vienna, Austria, where the OPEC Secretariat, the executive organ, carries out OPEC’s day-to-day business.

It aims to manage the supply of oil to set the price of oil in the world market, to avoid fluctuations that might affect the economies of both producing and purchasing countries.

OPEC membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.

OPEC has a total of 13 Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola, and Venezuela are members of OPEC.

Organization of the Petroleum Exporting Countries Plus

It is a loosely affiliated entity consisting of the OPEC members and 10 of the world’s major non-OPEC oil-exporting nations which are:

Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan, and Sudan.

It is notable that some of the world’s largest oil producers, including Russia, China, and the United States, are not members of OPEC, which leaves them free to pursue their own objectives.

Q.5) Recently seen in the news Lucy Mission is launched by which of the following Space organizations?

a) ISRO

b) ESA

c) China

d) NASA

Explanation: NASA’s Lucy mission, the agency’s first to Jupiter’s Trojan asteroids, launched on a United Launch Alliance (ULA) Atlas V rocket from Space Launch Complex 41 at Cape Canaveral Space Force Station in Florida.

Over the next 12 years, Lucy will fly by one main-belt asteroid and seven Trojan asteroids, making it

the agency's first single spacecraft mission in history to explore so many different asteroids. Lucy will investigate these "fossils" of planetary formation up close during its journey.

Lucy's Trojan destinations are trapped near Jupiter's Lagrange points – gravitationally stable locations in space associated with a planet's orbit where smaller masses can be trapped. One swarm of Trojans is ahead of the gas giant planet, and another is behind it. The asteroids in Jupiter's Trojan swarms are as far away from Jupiter as they are from the Sun.

The spacecraft's first Earth gravity assist in 2022 will accelerate and direct Lucy's trajectory beyond the orbit of Mars. The spacecraft will then swing back toward Earth for another gravity assist in 2024, which will propel Lucy toward the Donaldjohanson asteroid – located within the solar system's main asteroid belt – in 2025.

Lucy will then journey toward its first Trojan asteroid encounter in the swarm ahead of Jupiter for a 2027 arrival. After completing its first four targeted flybys, the spacecraft will travel back to Earth for a third gravity boost in 2031, which will catapult it to the trailing swarm of Trojans for a 2033 encounter

Named for the fossilized skeleton of one of our earliest known hominin ancestors, the Lucy mission will allow scientists to explore two swarms of Trojan asteroids that share an orbit around the Sun with Jupiter. Scientific evidence indicates that Trojan asteroids are remnants of the material that formed giant planets. Studying them can reveal previously unknown information about their formation and our solar system's evolution in the same way the fossilized skeleton of Lucy revolutionized our understanding of human evolution.

Q.6) Justice Dharmadhikari report was recently seen in news. The report is related to which of the following?

- a) Creation of National Infrastructure Master Plan
- b) Innovation in Telecom sector
- c) Privatization of Air India**
- d) Reviving loss making Discoms

Explanation: The airline was losing Rs 20 crore each day with its debt having mounted to Rs 65,562 crore by August, 2021. As a result, it had lost more than Rs 5,000 crore each year since 2016. Its accumulated losses of Rs 70,875.98 crore resulted in the complete erosion of the net worth of the company. The Air India also has outstanding employee dues of Rs 1,332 crore as per the Justice Dharmadhikari report with employee benefit expenses being above Rs 3,000 crore each year.

Q.7) Which of the following are the two major recommendations of the proposed National Water Policy (NWP)?

- 1. Shift focus from endlessly increasing supply of water towards measures for demand-management
- 2. Shift focus to emphasize on agility, resilience and flexibility in water management.
- 3. Shift in focus within the supply-side because the country is running out of sites for further construction of large dams

Select the correct answer using the code given below:

- a) 1 and 3 only**
- b) 1 and 2 only
- c) 2 and 3 only
- d) None of the Above

Explanation: Two major recommendations of the proposed NWP

The two major recommendations are one: shift focus from endlessly increasing supply of water towards measures for demand-management. This means diversifying cropping pattern to include less water-intensive crops. It also needs lowering the industrial water footprint, among the highest in the world by reducing fresh water use and shifting to recycled water. Cities must mandatorily shift all non-potable uses, such as flushing, fire protection, vehicle washing, landscaping etc. to treated wastewater.

Two: shift in focus within the supply-side also because the country is running out of sites for further construction of large dams, while water tables and groundwater quality are falling in many areas.

Q.8) Gen-Next Democratic Network, recently seen in news, is an initiative of:

a) Indian Council for Cultural Relations (ICCR)

b) NITI Aayog

c) Greenpeace

d) None of the above

Explanation: Chairman of Indian Council for Cultural Relations (ICCR) Dr Vinay Sahasrabudhe has said that as part of Azadi ka Amrit Mahotsav, India will host young leaders from 75 democracies under the initiative Gen-Next Democratic Network.

Young leaders below the age of 35 from the ruling party, opposition party and other key parties are being invited and the first batch will include leaders from Bhutan, Sri Lanka, Bangladesh, Japan, Indonesia, Chile and Zambia.

He said, Lok Sabha Speaker Om Birla will inaugurate the event on 25th November.

The objective behind the event is to give the young leaders a comprehensive idea about India's rich democratic culture.

Hence, option (a) is the correct answer.

Q.9) Consider the following statements:

1. Hypersonic speeds are 5 or more times the Mach speed.

2. Mach number describes an aircraft's speed compared with the speed of sound in air.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Mach Number describes an aircraft's speed compared with the speed of sound in air, with Mach 1 equating to the speed of sound i.e. 343 metre per second. Hence, statement 2 is correct.

Hypersonic speeds are 5 or more times the Mach or speed of sound. Hence, statement 1 is correct.

Types (2):

Hypersonic cruise missiles: These are the ones that use rocket or jet propellant through their flight and are regarded as being just faster versions of existing cruise missiles.

Hypersonic Glide Vehicle (HGV): These missiles first go up into the atmosphere on a conventional rocket before being launched towards their target.

Q.10) Consider the following statements:

1. It is the largest running joint military training and defence cooperation endeavor between India and the US.

2. It was started under the US Army Pacific Partnership Program and is hosted alternately between both countries.

3. The 16th edition of the exercise was held in February 2021 in Bikaner's Mahajan Field Firing Ranges (Rajasthan).

The above statements most appropriately describe which of the following exercises?

***a) Yudh Abhyas**

b) Cope India

c) Tiger Triumph

d) Vajra Praha

Explanation: Recently, the 17th Indo-US Joint Military Exercise "Ex Yudh Abhyas 2021" was

held at Joint Base Elmendorf-Richardson in Alaska (US).

In February 2021, the previous version of the exercise was held in Bikaner's Mahajan Field Firing Ranges (Rajasthan).

It is the largest running joint military training and defence cooperation endeavor between India and the US.

The exercise was started in 2004 under the US Army Pacific Partnership Program. The exercise is hosted alternately between both countries.

The exercise aims at enhancing understanding, cooperation and interoperability between two Armies.

Other Exercises between India and the US:

Exercise Tiger Triumph (Humanitarian Assistance and Disaster Relief exercise)

Exercise Vajra Prahar (Special Forces' Exercise)

Cope India (Air Force).

Hence, option A is correct.

October 20

Q.1) With reference to the India, Israel, the United Arab Emirates and the United States quad forum, consider the following statements:

1. The grouping had decided to establish an international forum for economic cooperation, and specifically discussed “possibilities for joint infrastructure projects”.
2. The Abraham Accords are a joint statement between State of Israel, the United Arab Emirates, and the United States of America, reached on August 13, 2020.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: India, Israel, the United Arab Emirates and the United States have decided to launch a new quadrilateral economic forum, as External Affairs Minister S. Jaishankar joined his counterparts at a videoconference from Jerusalem, where he is on a five-day visit.

The quadrilateral builds on ongoing cooperation between the U.S., Israel and the UAE after the Abraham Accords last year, and the India, Israel and UAE cooperation that was launched since.

Mr. Jaishankar’s travel to Israel is also routed via the UAE, on flights that started as a consequence of the Abraham Accords and the opening of diplomatic missions and flights between them.

The grouping had decided to establish an international forum for economic cooperation, and specifically discussed “possibilities for joint infrastructure projects”.

The four Ministers discussed “expanding economic and political cooperation in the Middle East and Asia, including through trade, combating climate change, energy cooperation, and increasing maritime security,” as well as ways to counter the COVID-19 pandemic.

Hence both statements are correct.

Q.2) With reference to the Hypersonic Glide Vehicles, Consider the following statements:

1. Only USA, Russia and China are developing Hypersonic Glide Vehicles
2. These are launched on rockets and then orbit the earth on their own speed.
3. They are easy to track because like ballistic missiles, they follow the fixed parabolic trajectory.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only**
- d) 1, 2 and 3

Explanation: Only USA Russia and China are developing hypersonic glide vehicles, that are launched on rockets and then orbit the earth on their own speed. They are difficult to track because unlike ballistic missiles, they “do not follow the fixed parabolic trajectory”.

China tested ‘nuclear capable hypersonic missile’, test would pose a big challenge to U.S. missile defence systems because “the weapon could, in theory, fly over the South Pole.” “That would pose a big challenge for the U.S. military because its missiles defence systems are focused on the northern polar route,”

Q.3) With reference to Exercise Yudh Abhyas, consider the following statements:

1. It is the bilateral exercise between India and Russia
2. It is the largest running joint military training and defence cooperation endeavor between the two countries.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: The 17th edition of the India – USA. bilateral exercise, Yudh Abhyas 2021, got under way at the Joint Base Elmendorf Richardson, Alaska, U.S., with the two sides set to hone their skills in counter-terror operations in mountainous terrain and cold climate conditions.

Interestingly, this is the only India-U.S. service exercise continuing in bilateral format.

The 14-day training schedule includes activities on joint training in counter-insurgency, counter-terrorism environment under the U.N. mandate, the Army said.

“This will help them in undertaking joint operations at the battalion level in mountainous terrain with cold climatic conditions under the ambit of the U.N.”

Exercise Yudh Abhyas is the largest running joint military training and defence cooperation endeavour between the two countries, the Army said.

Q.4) With reference to Geospatial Energy map of India, consider the following statements:

1. It provides a holistic picture of all energy resources of the country.
2. Map has been developed by NIC in collaboration with ISRO.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is correct

Statement 2 is incorrect: Map has been developed by NITI Aayog and ISRO.

Q.5) With reference to Exercise Cambrian Petrol, consider the following statements:

1. It is held annually by USA army.

2. Indian Army won the gold medal under this exercise.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Statement 1 is incorrect: It is organized by the UK Army. It is considered as the ultimate test of human endurance, team spirit and is sometimes referred to as the Olympics of Military Patrolling among militaries in the world. Statement 2 is correct: A team from Gorkha Rifles (Frontier Force) which represented the Indian Army at the prestigious Cambrian Patrol Exercise at Brecon, Wales, UK has been awarded a Gold medal.

Q.6) The term ‘Allium negianum’, recently seen in the news, refers to?

- a) A newly discovered crater on the lunar surface.
- b) A medicine developed for the treatment of Covid infection.
- c) A rare animal species sighted in western ghats endemic to himalayan ecosystem.
- d) A newly discovered onion species from Uttarakhand having various medicinal utilities

Explanation: Recently, a newly discovered plant Allium negianum, in Uttarakhand has been confirmed to belong to the genus that includes many staple foods such as onion and garlic.

Allium is one of the largest genera in Amaryllidaceae.

Amaryllidaceae is a family of herbaceous (connected with plants that have soft stems), mainly perennial and bulbous flowering plants.

The genus Allium contains about 1,100 species worldwide, including many staple foods like onion, garlic, scallion, shallot and chives.

The genus naturally occurs in dry seasons in the northern hemisphere and South Africa but the

newly-identified species is restricted to the region of the western Himalaya.

The scientific name *Allium negianum* honours the late Dr. Kuldeep Singh Negi, an eminent explorer and *Allium* collector from India.

They are useful for various medicinal purposes.

Hence, option D is correct.

Q.7) With reference to the Electronic-Waste, consider the following statements:

1. The Nairobi Declaration of the Basel Convention mentions the management of electronic wastes.

2. India's first e-waste clinic for segregating, processing and disposal of waste from household and commercial units has been set-up in Bhopal.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: E-Waste is short for Electronic-Waste and the term is used to describe old, end-of-life or discarded electronic appliances. It includes their components, consumables, parts and spares.

It is categorised into 21 types under two broad categories:

Information technology and communication equipment.

Consumer electrical and electronics.

Laws to manage e-waste have been in place in India since 2011, mandating that only authorised dismantlers and recyclers collect e-waste. E-waste (Management) Rules, 2016 was enacted in 2017.

India's first e-waste clinic for segregating, processing and disposal of waste from household

and commercial units has been set-up in Bhopal, Madhya Pradesh. Hence, statement 2 is correct.

Originally, the Basel Convention (1992) did not mention e-waste but later it addressed the issues of e-waste in 2006 (COP8).

The Nairobi Declaration was adopted at COP9 of the Basel Convention on the Control of the Trans-boundary Movement of Hazardous Waste. It aimed at creating innovative solutions for the environmentally sound management of electronic wastes. Hence, statement 1 is correct.

Q.8) Consider the following statements with respect to the polar bear:

1. It is a hypercarnivore animal.

2. Its IUCN status is 'Vulnerable'.

3. Polar bears do not feed on penguins because they have a symbiotic relationship.

Which of the above statements is/are correct?

a) 1 only

b) 1 and 2 only

c) 2 only

d) 1, 2 and 3

Explanation: A hypercarnivore is an animal whose nutritional requirements are found only in animal meat. Moreover, these organisms might be able to ingest plant matter but they do not have the physiological mechanisms that are required to effectively digest it.

The polar bear is a hypercarnivore animal.

Polar Bear (*Ursus maritimus*) is classified as "Vulnerable" in the IUCN Red List.

Polar bears do not eat penguins as penguins do not make up the ecosystem of the Arctic.

Yet another reason as to why polar bears would not have preferred to prey on penguins is that birds such as this cannot provide sufficient protein for the bears to survive the frigid Arctic weather.

meeting goals of climate change and sustainable development.

Q.9) Consider the following statements regarding PM CARES Fund.

1. Donations to the PM CARES Fund would qualify for 100% exemption under the Income Tax Act, 1961.
2. Donations to PM CARES Fund will also qualify to be counted as Corporate Social Responsibility (CSR) expenditure under the Companies Act, 2013.
3. PM CARES Fund has also got exemption under the FCRA [Foreign Contribution Regulation Act].

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3**

Explanation: The official website and the Press Information Bureau declared that donations to the PM CARES Fund “would qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961. Donations to PM CARES Fund will also qualify to be counted as Corporate Social Responsibility (CSR) expenditure under the Companies Act, 2013. PM CARES Fund has also got exemption under the FCRA [Foreign Contribution Regulation Act] and a separate account for receiving foreign donations has been opened”.

Q.10) Race to Zero global campaign, is carried out under the aegis of

- a) World Bank
- b) UNESCO
- c) UNFCCC**
- d) OECD

Explanation: UN-backed ‘Race to Zero’ global campaign, which aims to create jobs while

October 21

Q.1) The Abraham Accords are a joint statement between State of Israel, the United Arab Emirates, and:

- a) U.S.A
- b) U.K
- c) Germany
- d) India

Explanation: On 18 October, 2021, the foreign ministers of the United States, India, Israel, and UAE met virtually to enhance cooperation and partnerships between these states on the back of the Abraham Accords, signed in 2020, normalising relations between Israel and a grouping of Arab states led by the UAE.

The Abraham Accords are a joint statement between State of Israel, the United Arab Emirates, and the United States of America, reached on August 13, 2020.

Subsequently, the term was used to refer collectively to agreements between Israel and the United Arab Emirates (the Israel–United Arab Emirates normalization agreement) and Bahrain, respectively (the Bahrain–Israel normalization agreement).

The statement marked the first public normalization of relations between an Arab country and Israel since that of Jordan in 1994.

The agreement with the UAE was officially titled the Abraham Accords Peace Agreement: Treaty of Peace, Diplomatic Relations and Full Normalization Between the United Arab Emirates and the State of Israel.

The agreement between Bahrain and Israel was officially titled the Abraham Accords: Declaration of Peace, Cooperation, and Constructive Diplomatic and Friendly Relations, and was announced by the United States on September 11, 2020.

The accords are named after Abraham to emphasize the shared origin of belief between Judaism and Islam, both of which are Abrahamic religions that strictly espouse the monotheistic worship of the God of Abraham.

Hence, option (a) is the correct answer.

Q.2) Bhaskarabda, an era counted from the date of the ascension of a seventh century local ruler, will be added to Saka and Gregorian eras in the official calendar of the Assam Government. Bhaskarabda began when Bhaskaravarman was crowned ruler of the Kamrupa kingdom. He was a contemporary and political ally of northern Indian ruler:

- a) Pulakesin II
- b) Krishna I
- c) Sinhavishnu

d) Harshavardhana

Explanation: Bhaskarabda, an era counted from the date of the ascension of a seventh century local ruler, will be added to Saka and Gregorian eras in the official calendar of the Assam Government.

Bhaskarabda began when Bhaskaravarman was crowned ruler of the Kamrupa kingdom. He was a contemporary and political ally of northern Indian ruler Harshavardhana.

Unlike Gregorian, where a day starts at midnight, the Assamese calendar begins and ends at sunrise over 24 hours. While the Gregorian goes by the solar cycle, the Saka and Bhaskarabda eras use a lunisolar system based on both the phases of the moon and the solar year.

The gap between Bhaskarabda and Gregorian is 593 years.

Hence, option (d) is the correct answer.

Q.3) With reference to the Bio-enzymes, consider the following statements:

1. Bio-enzymes are organic solutions produced through fermentation of organic waste including various fruits, vegetable peels and flowers, by mixing in sugar, jaggery/molasses and water.
2. It takes 60-100 days to ferment organic waste.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: The start of kinnow season in Punjab also brings with it the falling fruit, which is considered a total waste by farmers. But this fallen fruit can prove a boon to improve soil, water, air, depleting ground water, water contamination and overall ecology.

Around a 100 farmers in Punjab, specially in the kinnow belt, have started making BEs from this waste fruit — peel and 'D' grade, very small kinnows.

Kinnow is a year-long duration crop and the main harvesting period is from November-end to March, but some varieties of citrus fruit start coming into the markets in October.

Bio-enzymes are organic solutions produced through fermentation of organic waste including various fruits, vegetable peels and flowers, by mixing in sugar, jaggery/molasses and water.

It takes 60-100 days to ferment organic waste. To fasten the fermentation, yeast can be used as culture to prepare it in 45-50 days. BE's also have a lot of usage in our daily lives.

Hence both statements are correct.

Q.4) Lord Buddha attained Mahaparinirvana (ultimate salvation) in c. 483 BC in which of the following place?

a) Kushinagar

b) Meerut

c) Bodh Gaya

d) Kathmandu

Explanation: Prime Minister Narendra Modi inaugurated the Kushinagar international airport in the presence of representatives from 12 countries.

The airport in eastern UP, the third international airport in the state, will mainly service the Buddhist tourism circuit.

The Sri Lankan Airlines flight carrying monks and dignitaries was the first to land at the airport.

Kushinagar and The Buddha

Among the most important of Buddhist pilgrimages, Kushinagar was where The Buddha attained Mahaparinirvana (ultimate salvation) in c. 483 BC.

Today's Kushinagar is identified with Kushinara, capital of the ancient Malla republic, which was one of the 16 mahajanapadas of the 6th-4th centuries BC.

The area went on to be part of the kingdoms of the Mauryas, Shungas, Kushanas, Guptas, Harshavardhana, and the Palas. Kushinara is believed to have been inhabited until at least the 12th century.

The first excavations in Kushinagar were carried out by Alexander Cunningham and ACL Carlleyle, who unearthed the main stupa and the 6-metre-long statue of the Reclining Buddha in 1876.

Kushinagar is among the very few places in India where The Buddha is depicted in reclining form.

Hence, option (a) is the correct answer.

Q.5) Consider the following statements:

1. Buddhists believe that Gautama Buddha delivered his last sermon and attained 'Mahaparinirvana' or salvation in Kushinagar
2. Kushinagar was the capital of Kosala Kingdom and according to Ramayana it was built by King Kush

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

*c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Kushinagar is a town in the Kushinagar district of the Indian state of Uttar Pradesh. It is an important Buddhist pilgrimage site, where Buddhists believe Gautam Buddha attained Mahaparinirvana after his death. It is an international Buddhist pilgrimage centre.

According to one theory, Kushinagar was the capital of Kosala Kingdom and according to Ramayana it was built by King Kush, son of Rama, protagonist of the epic Ramayana. While according to Buddhist tradition Kushavati was named prior to the king Kush. The naming of Kushwati is believed to be due to abundance of Kush grass found in this region.

Q.6) Consider the following statements:

1. The Supreme Court held that part-time employees are not entitled to seek regularization as they are not working against any sanctioned post in the Government.
2. The SC said that regularization could be only as per the policy declared by the Government and nobody can claim the regularization as a matter of right

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The Supreme Court has held that part-time employees are not entitled to seek regularization as they are not working against any sanctioned post in the Government.

The Supreme Court said that there cannot be any permanent continuance of part-time temporary employees.

The status of permanency cannot be granted when there is no post. It is further observed that mere continuance every year of seasonal work during the period when work was available does not constitute a permanent status

The SC said it was a settled proposition of law that regularization could be only as per the policy declared by the Government and “nobody can claim the regularization as a matter of right

Q.7) Recently seen in the news, the Kudumbashree scheme is related to which of the following state?

- a) Tamil Nadu
- b) Rajasthan
- c) Karnataka

d) Kerala

Explanation: Kerala Government plans to start an online platform to deliver products manufactured by Kudumbashree and another micro, small and medium production units.

Kudumbashree, the Kerala State Poverty Eradication Mission was launched on 17th May 1998 inaugurated by the Prime Minister, Shri Atal Bihari Vajpayee.

The Mission aims to eradicate absolute poverty within a definite time frame of 10 years under the leadership of Local Self Governments formed and empowered by the 73rd and 74th Amendments of the Constitution of India.

The Mission launched by the State Government with the active support of the Government of India and NABARD has adopted a different methodology in addressing poverty by organizing the poor into community-based organizations. The Mission follows a process approach rather than a project approach.

Q.8) Consider the following GM crops and choose the ones which are not legally allowed to be cultivated in India.

1. Rice
2. Brinjal
3. Cotton
4. Mustard

Options:

- a) 1 & 2 only
- b) 1 & 4 only
- c) 1, 2 & 4 only

d) All of the above

Explanation: GM Cotton is the only genetically modified crop legally allowed to be cultivated in India.

GM Rice, GM Brinjal and GM Mustard do not have the legal approval to be cultivated in the country.

Q.9) INSACOG, recently seen in the news, is

a) ISRO's latest satellite to join the IRNSS navigation system

b) CDAC's latest supercomputer focusing on cognitive learning

c) Consortium of labs focusing on finding genome sequencing of SARS-CoV2

d) Instantly rechargeable battery for electric cars

Explanation: Indian SARS-CoV-2 Genomics Consortium (INSACOG) is a multi-lab agency set up by the Government of India for sequencing and analysing the genome data with respect to the SARS-CoV-2 virus.

Q.10) Consider the following statements about Poliomyelitis.

1. It is a highly infectious viral disease, which mainly affects young children.

2. The virus is transmitted by person-to-person and spread through contaminated water or food.

3. Polio disease can be cured with proper medication.

Which of the above statements is/are correct?

a) 1 only

b) 1, 2

c) 1, 3

d) 1, 2, 3

Explanation: Poliomyelitis (polio) is a highly infectious viral disease, which mainly affects young children. The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and can cause paralysis.

Initial symptoms of polio include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs. In a small proportion of cases, the disease causes paralysis, which is often permanent. There is no cure for polio, it can only be prevented by immunization.

October 22

Q.1) With reference to the Atal Innovation Mission of NITI Aayog, consider the following statements:

1. The Atal Innovation Mission (AIM) is the Government of India's flagship initiative to promote innovation and entrepreneurship culture in the country.
2. It is mandated to create an umbrella structure to oversee innovation ecosystem of the country and revolutionizing the innovation eco-system - touching upon the entire innovation life cycle through various programs.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: NITI Aayog's Atal Innovation Mission (AIM) has launched a Digi-Book – "Innovations for You" an attempt to showcase the success stories of Atal Innovation Mission's Startups in different domains.

These startups have worked to create new, disruptive and innovative products, services, and solutions that can pave a path for a sustainable future. The first edition of this book is focused on innovations in Health Care and soon other sectors shall follow.

The book is a compilation of 45 health tech startups, incubated at Atal Incubation Centres spread across the country.

These startups are leveraging frontier technologies such as AI, IoT, ICT and others to provide socially relevant solutions to problems like Anemia, Malaria, dental care, mental health, neonatal and child care and monitoring human vitals, among others.

Atal Innovation Mission of NITI Aayog

The Atal Innovation Mission (AIM) is the Government of India's flagship initiative to promote innovation and entrepreneurship culture in the country.

AIM is mandated to create an umbrella structure to oversee innovation ecosystem of the country and revolutionizing the innovation eco-system - touching upon the entire innovation life cycle through various programs.

Hence both statements are correct.

Q.2) Which of the following constitutional amendment act introduced the 10% Economically Weaker Sections (EWS) quota in India?

a) 103rd Constitutional Amendment 2019

b) 91st amendment act 2003

c) 72nd amendment act 1992

d) None of the above

Explanation: The Supreme Court asked the Government if it wants to revisit the limit of ₹8 lakh annual income fixed for determining the Economically Weaker Sections (EWS) category for reservation in NEET admissions for medical courses under the all-India quota.

The Bench expressed its annoyance at the Government for not filing an affidavit explaining how it reached the ₹8 lakh figure to identify the EWS category for grant of reservation. Was any demographic study or data taken into account in fixing the limit," the Bench asked.

The court said it might even "stay the Government notification fixing ₹8 lakh for determining the EWS".

The Supreme Court's query is significant as the One Hundred and Third Constitutional Amendment of 2019, which introduced the 10% EWS quota, is itself under challenge before a larger Bench.

The Amendment is under question for making economic criterion as the sole ground for grant of reservation benefits.

The court was hearing a batch of petitions filed by NEET aspirants challenging a July 29 notification of the Centre announcing 27% quota to OBCs and 10% reservation to EWS in the All India Quota category.

Hence, option (a) is the correct answer.

Q.3) What is CRISPR, recently seen in news?

a) Gene editing tool

- b) Exoplanet
- c) Cryptocurrency
- d) None of the above

Explanation: Even as the Centre investigates allegations that unauthorised genetically modified (GM) rice was exported to Europe, it is yet to decide on a research proposal from its own scientists which would allow plants to be genetically modified without the need for conventional transgenic technology.

Scientists at the Indian Agricultural Research Institute are in the process of developing resilient and high-yield rice varieties using such gene editing techniques, which have already been approved by many countries, and they hope to have such rice varieties in the hands of the Indian farmers by 2024.

However, the proposal for Indian regulators to consider this technique as equivalent to conventional breeding methods, since it does not involve inserting any foreign DNA, has been pending with the Genetic Engineering Appraisal Committee for almost two years.

The IARI has previously worked on golden rice, a traditional GM variety which inserted genes from other organisms into the rice plant, but ended trials over five years ago due to agronomic issues.

The Institute has now moved to newer technologies such as Site Directed Nuclease (SDN) 1 and 2. They aim to bring precision and efficiency into the breeding process using gene editing tools such as CRISPR.

Hence, option (a) is the correct answer.

Q.4) Scientists are developing disease-resistant arecanut palms. In this regard, consider the following statements:

1. It is caused by bacteria phytoplasma where arecanut leaves turn yellow when afflicted with the disease.
2. Kernel of the nuts of disease-affected palms become soft

3. The disease is transmitted by the plant-hopper insect

Which of the statements given above is/are correct?

- a) 1 and 3 only
- b) 2 only
- c) 1 only

d) 1, 2 and 3

Explanation: Efforts on to develop disease-resistant arecanut palms

Healthy plants will be selected from plantations that have been facing the disease for at least 15-20 years now. Such selected plants should be in a position to bear arecanut. These plants will be further subjected to intensive observation and research for another two years leading to final selection. Steps will be taken to develop a disease-resistant variety after that selection, he said.

Caused by bacteria phytoplasma, arecanut leaves turn yellow when afflicted with the disease. Kernel of the nuts of disease-affected palms become soft, showing blackish discolouration, leading to a spongy texture. The disease is transmitted by the plant-hopper insect *Proutista moesta*.

Q.5) Kushinagar is a significant place in Buddhism since

- a) It is Gautam Buddha's final resting place
- b) Gautam Buddha spent 24 rainy seasons here
- c) Gautam Buddha gave his first sermon here
- d) Gautam Buddha attained enlightenment here

Explanation: Buddhist pilgrims consider Kushinagar a sacred site where, they believe, Gautama Buddha delivered his last sermon and attained 'Mahaparinirvana' or salvation. It is believed to be the final resting place of Gautama Buddha.

Q.6) Recently seen in the news, the Production Gap report was released by?

- a) UNEP

- b) WHO
- c) WEF
- d) Frontiers of Earth forum

Explanation: Recently, the 2021 Production Gap Report was released by the leading research institutes and the United Nations Environment Programme (UNEP).

The Production Gap Report, first launched in 2019, tracks the discrepancy between governments' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C.

Q.7) Recently in news, Mudumalai National Park is located in which of the following State?

- a) Kerala
- b) Tamil Nadu**
- c) Karnataka
- d) Andhra Pradesh

Explanation: Mudumalai National Park is a national park in the Nilgiri Mountains in Tamil Nadu, south India. It covers 321 km² at an elevation range of 850–1,250 m in the Nilgiri District and shares boundaries with the states of Karnataka and Kerala. A part of this area has been protected since 1940.

Q.8) Which of the following countries are members of OPEC+?

1. Russia
2. Mexico
3. Oman
4. Kazakhstan
5. Azerbaijan

Select the correct answer from the codes given below:

- a) 1, 2, 3
- b) 1, 2, 4, 5
- c) 2, 3, 5
- d) 1, 2, 3, 4, 5**

Explanation: All countries are members of OPEC+.

OPEC plus countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

Q.9) Consider the following statements:

1. Di-Ammonium Phosphate (DAP) is the most commonly used fertilizer in India.
2. The DAP is high in phosphorus content that stimulates root development.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Di-Ammonium Phosphate (DAP) is the second most commonly used fertilizer in India after urea. Hence, statement 1 is not correct.

Farmers normally apply this fertiliser just before or at the beginning of sowing, as it is high in phosphorus (P) that stimulates root development. Hence, statement 2 is correct.

DAP (46% P, 18% Nitrogen) is the preferred source of Phosphorus for farmers.

This is similar to urea, which is their preferred nitrogenous fertiliser containing 46%

Q.10) Consider the following statements.

1. Arahat Mahinda was a Buddhist monk depicted in Buddhist sources as bringing Buddhism to Sri Lanka.

2. Saṅghamittā was the eldest daughter of Emperor Ashoka.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: When Prime Minister Narendra Modi declares open the Kushinagar International Airport in Uttar Pradesh on October 20, a sizeable Sri Lankan contingent, led by a member of the first family, will be present.

To mark the occasion, Sri Lanka will present to India photographs of two murals.

One of the murals depicts 'Arahat Bhikkhu' Mahinda, son of Emperor Ashoka delivering the message of the Buddha to King Devanampiyatissa of Sri Lanka. The other shows the arrival of 'Theri Bhikkhuni' Sanghamitta, the daughter of the Emperor, in Sri Lanka, bearing a sapling of the 'sacred Bodhi tree' under which Siddhārtha Gautama is believed to have obtained enlightenment.

Arahat Mahinda was a Buddhist monk depicted in Buddhist sources as bringing Buddhism to Sri Lanka.

Saṅghamittā was the eldest daughter of Emperor Ashoka.

October 23

Q.1) India and which of the following country will launch their biggest joint military exercise, Konkan Shakti in the Indian Ocean?

- a) U.K
- b) U.S.A
- c) Russia
- d) France

Explanation: The UK and India will launch their biggest joint military exercise, Konkan Shakti, with the re-entry of UK's Carrier Strike Group (CSG) into the western Indian Ocean waters.

The CSG, with HMS Queen Elizabeth—its new aircraft carrier as the flagship—has been on deployment all summer in the Indo-Pacific waters.

Konkan Shakti is the first triservice exercise between the two nations.

Another army exercise, Ajeya Warrior is ongoing in Uttarakhand where around 120 British soldiers are participating. The two navies had engaged in naval war games during a two-day passage exercise (Passex) in the Bay of Bengal in July during the onward leg of the CSG's deployment.

Hence, option (a) is the correct answer.

Q.2) With reference to the Financial Action Task Force (FATF), consider the following statements:

1. The Financial Action Task Force (FATF) again retained Pakistan in the 'greylist'.
2. It is an initiative of World Bank.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The Financial Action Task Force (FATF) retained Pakistan in the 'greylist' yet

again. The FATF also announced the 'greylisting' of Jordan, Mali and Turkey, following the conclusion of the Plenary session.

FATF observed that Pakistan needed to further demonstrate that investigations and prosecutions were being pursued against the senior leadership of UN-designated terror groups, which include the Lashkar-e-Taiba (LeT), Jaish-e-Mohammed (JeM), al-Qaeda and the Taliban.

The Pakistan Government has two concurrent action plans with a total of 34 action plan items. It has addressed or largely addressed 30 of the items.

Its most recent action plan from June this year, which largely focused on money laundering deficiencies, was issued after the FATF's regional partner APG, that is the Asia-Pacific Group, identified a number of serious issues.

At the previous Plenary in June, the FATF had kept Pakistan in the list of "jurisdictions under increased monitoring" owing to its failure in prosecuting the top operatives of the Security Council-designated terror groups.

It had advised that Pakistan should continue to work to address its six strategically important deficiencies, which included enhancing international cooperation by amending the money-laundering law and demonstrating that assistance was being sought from foreign countries in implementing the UNSCR 1373 designations.

United Nations Security Council Resolution 1373, adopted unanimously on 28 September 2001, is a counter-terrorism measure passed following the 11 September terrorist attacks on the United States.

The Financial Action Task Force is an intergovernmental organisation founded in 1989 on the initiative of the G7 to develop policies to combat money laundering. In 2001, its mandate was expanded to include terrorism financing.

Hence only statement 1 is correct.

Q.3) With reference to the free trade agreement, consider the following statements:

1. India signed its last trade agreement, a Comprehensive Economic Cooperation Agreement (CECA) with Israel in 2011.

2. India and the Australia recently signed free trade agreement.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: India and Israel agreed to resume long-pending negotiations on a free trade agreement, as External Affairs Minister S. Jaishankar met his Israeli counterpart Yair Lapid in Jerusalem.

The FTA talks would begin in November and concluded by June 2022. The push for an FTA between the two countries is the latest in a series of attempts to negotiate a trade agreement over the past 14 years.

Both in 2007, then Prime Minister Manmohan Singh, and in 2017, Prime Minister Narendra Modi announced that an FTA would be completed, but talks have lapsed over a number of issues.

During the last round of talks, both sides explored the possibility of a limited trade deal or a Preferential Trade Agreement for about 200 goods, which had also not been concluded.

The latest effort for an FTA with Israel comes on the back of the government's recent drive to resume a number of trade negotiations, and the government has thus far committed to resumed talks with the U.K., Australia and the European Union, expressing the hope they would also be concluded in 2022.

Israel also announced it would join the India-France led International Solar Alliance (ISA), ahead of the next U.N. Climate Change COP26 summit in Glasgow this November.

India signed its last trade agreement, a Comprehensive Economic Cooperation Agreement (CECA) with Malaysia in 2011. India and Australia have also agreed to conclude the long-pending free trade agreement by the end of 2022 and an early harvest trade deal by as early as December.

Hence both statements are incorrect.

Q.4) With reference to the Foreign Contribution (Regulation) Amendment Act, 2020, consider the following statements:

1. According to the amendment foreign contribution can be received in any branch of the State Bank of India.
2. Public Servants are prohibited to accept any foreign contribution.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The Centre has told the Supreme Court that NGOs have no fundamental right to receive "unbridled foreign contributions" without regulations.

It was responding to petitions challenging amendments made in the Foreign Contributions Regulations law in 2020. The petitions had argued that the amendments severely restricted the use of foreign funds by the NGOs for their activities.

The petitioners had also found it cumbersome that the new law expected 23,000 NGOs to open accounts in the main branch of the State Bank of India (SBI) in the capital to receive their foreign funds.

The Centre said the amendments were meant to ensure that foreign funds were not used to impinge upon the functioning of parliamentary institutions, political associations and other organisations in India.

Hence only statement 2 is correct.

Q.5) With reference to Emergency Use Listing (EUL), consider the following statements:

1. The EUL procedure assesses the suitability of novel health products during public health emergencies.

2. The objective is to make medicines, vaccines and diagnostics available as rapidly as possible to address the emergency, while adhering to stringent criteria of safety, efficacy and quality.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The Emergency Use Listing (EUL) procedure assesses the suitability of novel health products during public health emergencies.

The objective is to make medicines, vaccines and diagnostics available as rapidly as possible to address the emergency, while adhering to stringent criteria of safety, efficacy and quality. The assessment weighs the threat posed by the emergency as well as the benefit that would accrue from the use of the product against any potential risks.

The EUL pathway involves a rigorous assessment of late phase II and phase III clinical trial data as well as substantial additional data on safety, efficacy, quality and a risk management plan. These data are reviewed by independent experts and WHO teams who consider the current body of evidence on the vaccine under consideration, the plans for monitoring its use, and plans for further studies.

As part of the EUL process, the company producing the vaccine must commit to continue to generate data to enable full licensure and WHO prequalification of the vaccine. The WHO prequalification process will assess additional clinical data generated from vaccine trials and deployment on a rolling basis to ensure the vaccine meets the necessary standards of quality, safety and efficacy for broader availability. As part of the EUL process, the company producing the vaccine must commit to continue to generate data to enable full licensure and WHO prequalification of the vaccine. The WHO prequalification process will assess additional clinical data generated from vaccine trials and deployment on a rolling basis to ensure the vaccine meets the necessary standards

of quality, safety and efficacy for broader availability.

Q.6) Consider the following statements

- 1) Pinaka weapon system is an indigenous multi rocket launcher system.
- 2) The Smerch system is the longest range conventional rocket system.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 & 2
- d) None of the above

Explanation: Indian Army has deployed Pinaka and Smerch Multiple Rocket Launcher Systems (MRLS) at a forward position near the China border to counter any threat arising across the Line of Actual Control (LAC).

Pinaka weapon system is an autonomous rocket artillery system that can engage area targets up to 38km at mean sea level. At these altitudes, the ranges are enhanced significantly which further augments the deep strike capability of the weapon system.

The Pinaka weapon system is an indigenous multi rocket launcher system designed by Defence Research and Development Organisation (DRDO) and it is a state of art, completely autonomous weapon system, which can engage targets up to 38 kilometres at mean sea level and at higher altitudes, the ranges get significantly enhanced, which subsequently enhance our deep strike capability.

The Smerch system is the longest range conventional rocket system in Indian army inventory having a maximum range of 90 Km. A battery of four launchers can fire a salvo of 48 rockets in 40 seconds neutralising an area of 1200m by 1200m.

The launcher is a very potent weapon in the arsenal of Indian artillery. The weapon can fire up to a range of 90 kilometres.

Being based on a 10 by 10 tatra, it's extremely mobile, and there is no issue with mobility in any sort of terrain. There are 12 tubes in the cluster, and it fires 12 rockets in a span of 40 seconds.

Q.7) Consider the following statements with regards to United Nations Development Programme (UNDP):

1. The UNDP Executive Board is made up of representatives from 36 countries around the world who serve on a rotating basis.
2. It is funded entirely by voluntary contributions from member nations.
3. The nodal agency for all matters related to UNDP in India is the Department of Economic Affairs, Finance Ministry, GOI.
4. The UNDP is governed by an administrator, who is the third-highest ranking UN official after the Secretary-General and Deputy Secretary-General.

Which of these statements is/are correct?

- a) 1 & 2 only
- b) 3 & 4 only
- c) 1, 2 & 4 only
- d) All of the above**

Explanation: The United Nations Development Programme (UNDP) is a United Nations organization tasked with helping countries eliminate poverty and achieve sustainable economic growth and human development. It is headquartered in New York City.

UNDP helps to eradicate poverty, reduce inequalities and exclusion, and build resilience so countries can sustain progress. As the UN's development agency, UNDP plays a critical role in helping countries achieve the Sustainable Development Goals.

The UNDP Executive Board is made up of representatives from 36 countries around the world who serve on a rotating basis.

The UNDP is funded entirely by voluntary contributions from UN member states.

The UNDP is governed by an administrator, who is the third-highest ranking UN official after the Secretary-General and Deputy Secretary-General.

The Department of Economic Affairs, Ministry of Finance is the designated nodal department that approves and signs the Country Programme Action Plan (CPAP) with UNDP.

Q.8) Which among the following is the nodal procurement agency for pulses in India?

- a) Food Corporation of India (FCI)
- b) India Pulses and Grains Association
- c) National Agricultural Cooperative Marketing Federation of India (NAFED)**
- d) National Pulses Corporation Ltd

Explanation: The National Agricultural Cooperative Marketing Federation of India (NAFED), is the nodal procurement agency for pulses (like Food Corporation of India, or FCI, is for rice and wheat).

Over the years, there have been demands from various quarters, including NAFED and the India Pulses and Grains Association, that the government include pulses in its PDS. NAFED currently procures five major pulses — gram (chana), green gram (moong), black gram (urad), lentils (masoor), pigeon pea (tur or arhar) on behalf of the Union government from farmers at the minimum support price (MSP).

The procurement is capped at 25 per cent of the actual production for that year / season. There is no limit on the procurement of wheat and rice.

Though some states already include them under their Integrated Child Development Scheme and mid-day meal programmes, pulses' inclusion under PDS could help fight malnutrition.

The seed replacement rate (SRR) of pulses is also quite slow. SRR tells how much area has been sown from certified seeds and how much from farm-saved seeds.

Given the importance of pulses in food and nutritional security, the United Nations declared

2016 as the International Year of Pulses. Food and Agriculture Organization's Soil and Pulses: Symbiosis of Life report released on the occasion, established an implicit relationship between pulses and soil quality, and their criticality to Sustainable Development Goals.

Q.9) Consider the following statements regarding Nord stream 2 pipeline, recently seen in news.

1. It runs from Russia to Germany.
2. It runs across the Mediterranean Sea.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: While the Iran-Pakistan-India gas pipeline, the Iran-India undersea pipeline, and the Turkmenistan-Afghanistan-Pakistan-India pipeline remain pipe dreams, the Nord Stream 2 (NS2) running from Russia to Germany across the Baltic Sea is now complete.

Q.10) Consider the following statements.

1. Hydrogen exists only combined with other elements, and has to be extracted from naturally occurring compounds like water.
2. Hydrogen fuel must be transformed into electricity by a fuel cell before it can be used to power a car or truck.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: The most common element in nature is not found freely. Hydrogen exists only combined with other elements, and has to be extracted from naturally occurring compounds like water (which is a combination of two hydrogen atoms and one oxygen atom). Although hydrogen is a clean molecule, the process of extracting it is energy-intensive.

Hydrogen is an energy carrier, not a source of energy. Hydrogen fuel must be transformed into electricity by a device called a fuel cell stack before it can be used to power a car or truck. A fuel cell converts chemical energy into electrical energy using oxidising agents through an oxidation-reduction reaction.

October 25

Q.1) Partnership on New Industrial Revolution (PartNIR), recently seen in news, is an initiative of:

- a) BRICS
- b) OECD
- c) G20
- d) OPEC

Explanation: India as the current BRICS Chair convened the 7th Meeting of BRICS Communications Ministers on 22nd October 2021.

Ministers adopted the Terms of References of Digital BRICS Task Force and supported the advancement in work of the BRICS Partnership on New Industrial Revolution (PartNIR) across several Working Groups meeting in 2021.

Ministers also appreciated the discussion on the "360-degree approach on New Industrial Revolution" in a seminar during Working Group on ICTs Cooperation

Ministers encouraged continuous cooperation in ICTs activities in international organizations and multilateral forums such as the International Telecommunications Union and other organizations.

Ministers adopted the proposal to host the Digital BRICS Forum annually to facilitate sharing of information and knowledge, practices, initiatives, etc. on agreed cooperation areas.

Hence, option (a) is the correct answer.

Q.2) Amended Technology Up-gradation Fund Scheme (ATUFS) is an initiative of which of the following Union ministry?

- a) Ministry of Agriculture & Farmers Welfare
- b) Ministry of Corporate Affairs
- c) Ministry of Chemical Fertilizers
- d) Ministry of Textiles

Explanation: Union Minister of Textiles Piyush Goyal reviewed the Amended Technology Up-gradation Fund Scheme (ATUFS) to boost the

Indian textile industry by enabling the ease of doing business, bolstering exports and fuelling employment.

Ministry of Textiles had introduced Technology Upgradation Fund Scheme (TUFS) in 1999 as a credit linked subsidy scheme intended for modernization and technology up-gradation of the Indian textile industry, promoting ease of doing business, generating employment and promoting exports. Since then, the scheme has been implemented in different versions.

The ongoing ATUFS has been approved in 2016 and implemented through web based iTUFS platform. Capital Investment Subsidy is provided to benchmarked machinery installed by the industry after physical verification.

ATUFS was approved for a period from 2015-16 to 2021-22 with an allocation of Rs. 17,822 crore (Rs. 12,671 crore for committed liability of previous versions of TUFS & Rs. 5151 crore for new cases under ATUFS).

The scheme is being administered with a two stage monitoring mechanism by Technical Advisory-cum-Monitoring Committee (TAMC) and Inter-Ministerial Steering Committee (IMSC). ATUFS is implemented through web based platform, iTUFS.

Modifications carried out in scheme guidelines in 2018 and further streamlining of procedures have simplified the process for availing the subsidy under the scheme

In 2019, IMSC decided to introduce physical verification of machinery and computation of subsidy before releasing committed liability under previous versions of scheme (MTUFS, RTUFS & RRTUFS).

Hence, option (d) is the correct answer.

Q.3) Consider the following statements:

1. Smerch is the longest range conventional rocket system in the Indian Army's inventory
2. Smerch is procured from Russia
3. Pinaka is a multiple rocket launcher indigenously designed and developed by the DRDO

Which of the statements given above is/are correct?

- a) 3 only
- b) 1 and 3 only
- c) 1 and 2 only
- d) 1, 2 and 3**

Explanation: India's military posture in the Tawang sector of Arunachal Pradesh has added an offensive punch with the Army deploying Pinaka and Smerch long-range, multi-barrel rocket launch systems as well as BrahMos supersonic cruise missiles in the region.

Smerch, procured from Russia, is the longest range conventional rocket system in the Army's inventory with a maximum range of 90 km

A battery of four launchers can fire a salvo of 48 rockets in 40 seconds, neutralising an area of 1200mX1200m

Pinaka, multiple rocket launcher, indigenously designed and developed by the Defence Research and Development Organisation, has a range of 38 km. "A battery of six launchers of Pinaka can fire a salvo of 72 rockets in 44 seconds, thereby neutralising an area of 1000mX800m

The upgraded version of the Pinaka ammunition systems were already in production line and could fire up to a range of 75 km with superior precision

Both Pinaka and Smerch have 12 rockets in each launcher. "In high-attitude areas, the ranges are enhanced significantly which further augments the deep strike capability of the weapon system,"

Q.4) Which of the following statements are incorrect?

1. Melioidosis, also called Whitmore's disease, is an infectious disease that can infect humans or animals.
2. The disease is caused by the bacterium Burkholderia pseudomallei.
3. It is a soil-dwelling bacterium endemic to temperate regions.
4. It is also recognized as a bioterrorism agent.

Options:

- a) 1 only
- b) 1 and 2 only
- c) 3 only**
- d) 3 and 4 only

Explanation: Melioidosis, also called Whitmore's disease, is an infectious disease that can infect humans or animals.

The disease is caused by the bacterium Burkholderia pseudomallei.

It is predominately a disease of tropical climates, especially in Southeast Asia and northern Australia where it is widespread.

It is also recognized as a bioterrorism agent.

Q.5) Operation Green Hunt, is related to which of the following:

- a) To evacuate Indian citizens from Taliban hit Afghanistan
- b) To stabilize the supply of TOP (Tomato, Onion, Potato) crops
- c) To assist the population of Madagascar affected by Cyclone Diane.

***d) To counter Naxalism**

Explanation: Statement d is correct: Operation Green Hunt: It was started in 2010 and massive deployment of security forces was done in the Naxal-affected areas. From 223 districts that were affected due to naxalism in the year 2010, the number has come down to 90 in nine years. The government even started 'Relief and Rehabilitation Policy' for bringing Naxalites into mainstream.

Q.6) As per the 2021 Global Agricultural Productivity Report, what is the annual rate of Total factor productivity (TFP)?

- a) 0.50 %
- b) 1.36 %**
- c) 2.50 %

d) 4.00 %

Explanation: According to the 2021 Global Agricultural Productivity Report (GAP Report), total factor productivity (TFP) is growing at an annual rate of 1.36 per cent.

This is below the Global Agricultural Productivity Index, whose annual target is at 1.73 per cent growth to sustainably meet the needs of consumers for food and bio-energy in 2050. TFP tracks changes in how efficiently agricultural inputs such as land, labour, fertiliser and machinery are transformed into outputs like crops and aquaculture products.

Q.7) The 'Osaka Track' often seen in news is related to?

a) Data flow and electronic commerce.

d) Management of marine life in Minamata Bay

c) Reducing the impact of disasters.

d) Mechanism developed for managing the Olympic 2020 during Covid pandemic.

Explanation: The "Osaka Track" is a process that demonstrates the commitment to promote efforts on international rule-making on digital economy, especially on data flow and electronic commerce.

India, South Africa, and Indonesia have boycotted the "Osaka Track" on the "digital economy" at the G20 leaders' summit in Osaka, as it overtly undermined "multilateral" principles of consensus-based decisions in global trade negotiations, and denied "policy space" for digital-industrialisation in developing countries.

Hence, option A is correct.

Q.8) Consider the following statements regarding the 'Net-Zero Emissions'?

1. It is a state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere.

2. India is the third-largest emitter of CO₂, behind China and the USA.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Net-Zero Emissions refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. Hence, statement 1 is correct.

First, human-caused emissions (like those from fossil-fueled vehicles and factories) should be reduced as close to zero as possible.

Second, any remaining GHGs should be balanced with an equivalent amount of carbon removal, for example by restoring forests.

As of June 2020, twenty countries and regions have adopted net-zero targets.

The Kingdom of Bhutan is already carbon-negative, i.e. absorbs more CO₂ than it emits.

India's per capita CO₂ emissions – at 1.8 tonnes per person in 2015 – are around a ninth of those in the USA and around a third of the global average of 4.8 tonnes per person.

However, overall, India is now the planet's third-largest emitter of CO₂, behind China and the USA. Hence, statement 2 is correct.

Recently, Indian Railways (IR) has announced that it is likely to become world's first 'net-zero' carbon emitter by 2030.

IR is taking a multi-pronged approach to go green and decarbonise - from increasing its sourcing of Renewable Energy (RE) to electrifying its traction network and reducing its energy consumption

Q.9) With reference to the 'Site Directed Nuclease (SDN) 1 and 2' technology, consider the following statements:

1. It aims to bring precision and efficiency into the breeding process using gene editing tools such as CRISPR.

2. It would allow the development of genetically modified crops without the need for conventional transgenic technology.

3. The developer of gene editing tool CRISPR won the Nobel Prize for Chemistry in 2020.

Which of the statements given above is/are correct?

a) 1 only

b) 1 and 3 only

c) 2 only

d) 1, 2 and 3

Explanation: The Indian Agricultural Research Institute (IARI) has now moved to newer technologies such as Site Directed Nuclease (SDN) 1 and 2.

New technique aims to bring precision and efficiency into the breeding process using gene editing tools such as CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats). Hence, statement 1 is correct.

Emmanuelle Charpentier and Jennifer Doudna won the Nobel Prize for Chemistry in 2020 for the development of the CRISPR tool. Hence, statement 3 is correct.

SDN genome editing involves the use of different DNA-cutting enzymes (nucleases) that are directed to cut the DNA at a predetermined location by a range of different DNA binding systems.

After the cut is made, the cell's own DNA repair mechanism recognizes the break and repairs the damage, using one of two pathways that are naturally present in cells.

It involves the use of gene editing tools to directly tweak (improve/change) the plant's own genes instead.

It would allow plants to be genetically modified without the need for conventional transgenic technology. Hence, statement 2 is correct.

A research coalition under the Indian Council of Agricultural Research (ICAR), which includes the IARI, is using these techniques to develop rice varieties which are drought-tolerant, salinity-tolerant and high-yielding. They could potentially be ready for commercial cultivation within three years.

The IARI has previously worked on golden rice, a traditional GM variety which inserted genes from other organisms into the rice plant, but ended trials over five years ago due to agronomic issues.

Q.10) "Banni" breed of buffaloes, is found primarily in

a) Kutch region

b) Malabar region

c) Chotanagpur region

d) None of the above

Explanation: With the birth of first IVF calf of a Buffalo breed namely Banni in the country, India's OPU - IVF work has reached to next level.

This is the first Banni Buffalo IVF calf in the country.

This first IVF Banni calf is born out of 6 Banni IVF pregnancies established at the doorsteps of a farmer, Vinay. L. Wala of Sushila Agro farms, located at Dhanej in Somnath district of Gujarat.

Prime Minister Modi had talked about the Banni buffalo breed during his visit to Kutch region of Gujarat on December 15, 2020. The very next day, i.e. December 16, 2020, Ovum Pick-Up (OPU) and aspiration processes for the in vitro fertilization (IVF) of Banni Buffaloes were planned.

Hence, option (a) is the correct answer.

October 26

Q.1) With reference to the white dwarf, consider the following statements:

1. A typical white dwarf is half the size of our Sun and has a surface gravity 100,000 times that of Earth.
2. Using the Hubble Space telescope and Transiting Exoplanet Survey Satellite (TESS), astronomers have identified several white dwarfs over the years.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: An international team has reported a unique phenomenon in a white dwarf about 1,400 light years from Earth. They saw the white dwarf lose its brightness in 30 minutes

These gaps in brightness have been previously reported but the process usually takes place over a period of several days to months.

The team observed the phenomena using NASA's Transiting Exoplanet Survey Satellite (TESS).

The white dwarf is part of a binary system called TW Pictoris, where a star and a white dwarf orbit each other.

The two objects are so close to each other that the star transfers material to the white dwarf.

As this material approaches the white dwarf it forms an accretion disk or a disk of gas, plasma, and other particles around it. TW Pictoris is located in the Pictoris constellation, and the binary system is about 1400 light years from us.

The team notes that a process called magnetic gating may be at play. This happens when the magnetic field is spinning so rapidly it creates a barrier disrupting the amount of food the white dwarf can receive.

The team hopes that this discovery will help us understand the physics behind accretion – how

black holes and neutron stars feed material from their nearby stars.

A typical white dwarf is half the size of our Sun and has a surface gravity 100,000 times that of Earth. Using the Hubble Space telescope and Transiting Exoplanet Survey Satellite (TESS), astronomers have identified several white dwarfs over the years.

Hence both statements are correct.

Q.2) The Rajbongshi or Koch-Rajbongshi is an ethnic group inhabiting parts of which of the following state?

- a) Assam
- b) Tamil Nadu
- c) Karnataka
- d) Andhra Pradesh

Explanation: Indigenous Muslims in northern Assam's Darrang district are now feeling the heat of an eviction drive that was ostensibly aimed at migrant Bengali Muslim settlers on the banks of the Brahmaputra.

In Assam, indigenous Muslims can be divided into three distinct groups called Gorias, Morias and Deshis. Some smaller groups like Moimal, Julha, Ujani and Syed are also called Assamese Muslims.

Unlike the Muslims who migrated from East Bengal and Bangladesh, members of these groups use Assamese as their mother tongue and follow and cultural traditions and festivities similar to Assamese Hindus which clearly differentiate them from the migrants.

While the Morias are mainly descendants of Muslim soldiers who were part of invasions to Assam and were captured by Ahom kings, the Deshis and Gorias are people from indigenous communities in lower and upper Assam respectively who converted to Islam.

Deshis were from Koch-Rajbongshi communities. Besides captured Muslim soldiers, Muslims engaged in various tasks by Ahom kings are also known as Morias.

Gorias comprise of Muslims brought from outside Assam by Ahom kings, captured Muslim soldiers and those who converted locally.

Hence, option (a) is the correct answer.

Q.3) With reference to the 'Zero Budget Natural Farming' (ZBNF), consider the following statements:

1. Under ZBNF, neither fertiliser nor pesticide is used.
2. In ZBNF only 10 % of water is to be utilised for irrigation as compared to traditional farming techniques.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Women farmers in the hill State of Himachal Pradesh are gradually turning to non-chemical, low cost "natural farming", which has not only provided them with a sustainable livelihood but also empowered them better.

Launched in 2018, the State's Prakritik Kheti Khushhal Yojana (PK3Y) is promoting the climate resilient Subhash Palekar Natural Farming (SPNF), also called 'Zero Budget Natural Farming'.

ZBNF is a set of farming methods, and also a grassroots peasant movement, which has spread to various states in India.

'Zero Budget' means without using any credit, and without spending any money on purchased inputs. 'Natural farming' means farming with Nature and without chemicals.

Under ZBNF, neither fertiliser nor pesticide is used. Also, only 10 % of water is to be utilised for irrigation as compared to traditional farming techniques.

Basic concept of ZBNF, which is different from organic farming, is to ensure that profit from supplementary crops is enough to cover the cost of production of the main crop.

It has attained wide success in southern India, especially the southern Indian state of Karnataka where it first evolved. The movement in Karnataka state was born out of by the efforts of Padma Shri Subhash Palekar in Karnataka.

Hence both statements are correct.

Q.4) Recently seen in the news, Burkholderia pseudomallei is related to?

- a) Soil bacterium
- b) Virus causing pathogen
- c) Newly discovered insect
- d) Extincted Fish species

Explanation: Burkholderia pseudomallei is a Gram-negative, bipolar, aerobic, motile rod-shaped bacterium. It is a soil-dwelling bacterium endemic in tropical and subtropical regions worldwide, particularly in Thailand and northern Australia.

It infects humans and other animals and causes the disease melioidosis.

A made-in-India aromatherapy spray is being pulled off retail giant Walmart's shelves in the United States after a medical investigation linked it to melioidosis, a rare disease that has sickened at least four and may have caused two deaths, in the country.

The spray was reported to contain a bacterium, Burkholderia pseudomallei, that causes a rare but deadly disease called melioidosis, the U.S. Centers for Disease Control and Prevention (CDC), said.

Q.5) Consider the following statements with regards to the GIFT city:

1. It is located in Gujarat's Gandhinagar.
2. It is a greenfield project.
3. It would only have commercial areas and no residential facilities.

Which of these statements are correct?

- a) 1 & 2 only

- b) 2 & 3 only
- c) 1 & 3 only
- d) All of the above

Explanation: Gujarat International Finance Tec-City (GIFT City) is an under-construction central business district in Gandhinagar in Gujarat, India.

It is India's first operational greenfield smart city and international financial services centre, which the Government of Gujarat promoted as a greenfield project.

The city includes commercial, financial and residential complexes.

Q.6) GAVI, often seen in the news, refers to which of the following?

- a) Global vaccine alliance formed specifically to expedite the rollout of Covid vaccine around the world
- b) Global vaccine alliance formed under OECD guidelines
- c) Global vaccine alliance with a goal of increasing access to immunization in poor nations**
- d) Global vaccine alliance working on rolling out world's first anti-malarial vaccine

Explanation: GAVI is a public-private global health partnership with the goal of increasing access to immunization in poor countries.

As part of its mission, GAVI has helped vaccinate more than 888 million children in the world's poorest countries.

By improving access to new and under-used vaccines for millions of the most vulnerable children, the Vaccine Alliance is transforming the lives of individuals, helping to boost the economies of lower-income countries and making the world safer for everyone.

Q.7) A memory B cell (MBC) is a type of B lymphocyte that forms part of the adaptive immune system. In this regard consider the following statements:

1. The memory B cells, which evolve in the lymph nodes, get triggered on subsequent infection or vaccination.
2. The people who recovered from COVID-19 when re-exposed to the spike protein; the memory B cells are capable of churning out highly potent antibodies.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: In immunology, a memory B cell (MBC) is a type of B lymphocyte that forms part of the adaptive immune system.

The immunological advantage from hybrid immunity arises mostly from memory B cells. While the bulk of antibodies after infection or vaccination decline after a short while, the memory B cells, which evolve in the lymph nodes, get triggered on subsequent infection or vaccination. So when people who recovered from COVID-19 are re-exposed to the spike protein, the memory B cells are capable of churning out highly potent antibodies.

“Differences between the memory B cells triggered by infection and those triggered by vaccination — as well as the antibodies they make — might also underlie the heightened responses of hybrid immunity. Infection and vaccination expose the spike protein to the immune system in vastly different ways

Q.8) With reference to Ashgabat Agreement, consider the following statements:

1. It is an international transport and transit corridor facilitating transportation of goods between Central Asia and the Persian Gulf.
2. India is not a part of this agreement.

Which of the statements given above is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: Statement 1 is correct: Ashgabat Agreement is an international transport and transit corridor facilitating transportation of goods between Central Asia and the Persian Gulf. The Ashgabat Agreement aims to develop the shortest trade route between Central Asian countries and Iranian and Omani ports. Statement 2 is incorrect: The multimodal transport agreement signed by the governments of Kazakhstan, Uzbekistan, Turkmenistan, Iran, Pakistan, India and Oman.

Q.9) Consider the following statements.

1. More than 25% of the rice exported from India is destined for the European countries.

2. Rice exports constitute the second-highest share in terms of India's total exports.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: About 500 tonnes of broken rice imported from India were claimed to be genetically modified (GM) by a French manufacturer. This has drawn sharp reactions from the European countries as the European Union (EU) does not permit GM rice. Data show that rice exports form the fifth-highest share in terms of India's total exports. India is also the biggest exporter of rice globally, forming over 30% of the world's exports. However, less than 5% of the rice exported from India is destined for the European countries. But for many European countries, India is their primary source for rice imports.

Q.10) Consider the following statements.

1. India is the second largest consumer of edible oil in the world.

2. Soyabean oil and mustard oil together constitutes the largest share of edible oil consumed in India.

3. Indian edible oil market is influenced by the international markets.

Which of the above statements is/are correct?

a) 1, 2

b) 2, 3

c) 1, 3

d) 1, 2, 3

Explanation: India is second only to China (34-35 mt) in terms of consumption of edible oil. Palm oil (45%) is the largest consumed oil, mainly used by the food industry for frying namkeen, mithai, etc, followed by soyabean oil (20%) and mustard oil (10%), with the rest accounted for by sunflower oil, cottonseed oil, groundnut oil etc. Crude and food-grade refined oil is imported in large vessels, mainly from Malaysia, Brazil, Argentina, Indonesia etc.

Given the heavy dependency on imports, the Indian edible oil market is influenced by the international markets.

October 27

Q.1) With reference to the Amur falcon, consider the following statements:

1. It breeds in south-eastern Siberia and Northern China before migrating in large flocks across India and over the Arabian Sea to winter in Southern and East Africa.
2. IUCN status is endangered.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: With the arrival of the migratory Amur falcons to Tamenglong district of Manipur for the annual stopover, State Environment Minister has appealed to the people not to hunt the seasonal visitors.

The Amur falcon (*Falco amurensis*) is a small raptor of the falcon family. It breeds in south-eastern Siberia and Northern China before migrating in large flocks across India and over the Arabian Sea to winter in Southern and East Africa.

These falcons visit the Tamenglong district of Manipur every year from breeding grounds in China and Russia before beginning their onward voyage to Africa for the winter — a journey of more than 30,000 km.

Hunting of this bird is punishable under the Manipur Wildlife (Protection) Act, 1972 and could lead to three years of imprisonment and a fine of ₹25,000.

IUCN status is Least Concern.

In another development, officials said the population of the brow-antlered deer (Sangai) found only in Manipur stood at fewer than 300 in its natural habitat, the 40 sq km Keibul Lamjao National park in Bishnupur district.

Hence only statement 1 is correct.

Q.2) With reference to the greenhouse gas emissions in 2020, consider the following statements:

1. A report from the World Meteorological Organisation (WMO) said the increase in CO₂ from 2019 to 2020 was slightly lower than that observed from 2018 to 2019 but higher than the average annual growth rate over the past decade.
2. The National Oceanic and Atmospheric Administration (NOAA) Annual Greenhouse Gas Index (AGGI) shows that from 1990 to 2020, radiative forcing by long-lived greenhouse gases (LLGHGs) increased by 47%.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: A report from the World Meteorological Organisation (WMO) said the increase in CO₂ from 2019 to 2020 was slightly lower than that observed from 2018 to 2019 but higher than the average annual growth rate over the past decade.

This is despite the approximately 5.6% drop in fossil fuel CO₂ emissions in 2020 due to restrictions related to the pandemic. The Bulletin, as the WMO report is called, shows that the pandemic disruption in 2020 didn't significantly dent overall greenhouse gas emissions.

For methane, the increase from 2019 to 2020 was higher than that observed from 2018 to 2019 and also higher than the average annual growth rate over the past decade.

For nitrous oxides also, the increase was higher and also than the average annual growth rate over the past 10 years.

The National Oceanic and Atmospheric Administration (NOAA) Annual Greenhouse Gas Index (AGGI) shows that from 1990 to 2020, radiative forcing by long-lived greenhouse gases

(LLGHGs) increased by 47%, with CO₂ accounting for about 80% of this increase.

Concentration of carbon dioxide (CO₂), the most significant greenhouse gas, reached 413.2 parts per million in 2020 and is 149% of the pre-industrial level. Methane (CH₄) is 262% and nitrous oxide (N₂O) is 123% of the levels in 1,750 when human activities started disrupting earth's natural equilibrium.

Hence both statements are correct.

Q.3) Which of the following institutes/organization releases the Climate Vulnerability Index of India?

- a) Tata Institute of Social Sciences
- b) Centre for Science & Environment
- c) Council on Energy, Environment & Water
- d) NITI Aayog

Explanation: More than 80% of Indians live in districts vulnerable to climate risks, while Assam, Andhra Pradesh, Maharashtra, Karnataka, and Bihar are states which are most vulnerable to extreme climate events such as floods, droughts, and cyclones in India according to Climate Vulnerability Index released by the Council on Energy, Environment, and Water (CEEW).

The report has cited Dhemaji and Nagaon in Assam, Chennai in Tamil Nadu, Khammam in Telangana, Gajapati in Odisha, Vizianagaram in Andhra Pradesh)and Sangli in Maharashtra among India's most climate-vulnerable districts.

Overall, 27 Indian states and Union Territories are vulnerable to extreme climate events which often disrupt the local economy and displace weaker communities.

The study, supported by the India Climate Collaborative and Edelgive Foundation, further highlighted that 463 out of 640 districts in India are vulnerable to extreme floods, droughts, and cyclones.

More than 45% of these districts have undergone unsustainable landscape and infrastructure changes. Further, 183 hotspot districts are highly vulnerable to more than one extreme climate

event. The CEEW study also found that more than 60% of Indian districts have medium to low adaptive capacity.

The CEEW study recommended that restoration of climate-sensitive landscapes will act as natural shock absorbers against extreme climate events.

Further, integration of climate risk profiling with infrastructure planning is imperative for protecting the existing and planned infrastructure projects.

The findings are relevant since India is considered the seventh most vulnerable country across the globe, according to the Climate Risk Index by Germanwatch.

The CEEW study is the first one to assess the vulnerability of India's districts against extreme climate events.

Q.4) The term Gorias is sometimes seen in the news is related to:

- a) They are descendants of Africans from the Bantu region of East Africa living in Central and South India
- b) They are a category of Assamese Muslims
- c) They are an indigenous community inhabiting in parts of Assam
- d) None of the Above

Explanation: They are a category of Assamese Muslims.

Gorias trace their lineage back to the time of the 13th-century Ahom kings.

Their behavior, culture, traditions are same as other indigenous communities of Assam.

Now in Assam, they are worried about losing access to the land they had been using through generations for seasonal farming and grazing their livestock.

Q.5) China-Pakistan Economic Corridor (CPEC) connects which of the following:

- a) Western China with the Gwadar port in Pakistan
- b) Eastern China with the Gwadar port in Pakistan

c) Western China with the Karachi Port in Pakistan

d) None of the Above

Explanation: The ambitious China-Pakistan Economic Corridor (CPEC) was launched in 2015 when Chinese President Xi Jinping visited Pakistan. It aims to connect western China with the Gwadar port in southwestern Pakistan through a network of roads, railways and other projects of infrastructure and development.

Q.6) With respect to Target Maturity Funds (TMFs), consider the following statements:

1. In TMF, there is a stated date on which the fund would mature and upon maturity, money flows back to the investors.

2. The indices for TMFs are run, in most cases, by the NSE, and sometimes by Crisil.

3. Like Fixed Maturity Plans (FMPs), usual maturity of TMFs is three years

Which of the statements given above is/are correct?

a) 3 only

b) 1 and 3 only

c) 1 and 2 only

d) 1, 2 and 3

Explanation: There is a target or a stated date on which the fund would mature. Upon maturity, money flows back to the investors. TMFs are similar to fixed maturity plans (FMPs), in that they mature like a bond or a bank fixed deposit.

However, TMFs are significantly better than FMPs. The drawback of FMPs is that though it is listed on the exchanges, there is no liquidity. If you intend to sell prior to maturity, you may not get a buyer. Moreover, the usual maturity of FMPs is three years. This means that the choice of investors is limited to a one time horizon.

The indices for TMFs are run, in most cases, by the NSE, and sometimes by Crisil.

Q.7) Palk Strait, is a strait between which of the following countries:

***a) India and Sri Lanka**

b) India and Bangladesh

c) Sri Lanka and Bangladesh

d) India and Pakistan

Explanation: Statement a is correct: The Palk Strait is a strait between the Tamil Nadu state of India and the Jaffna District of the Northern Province of Sri Lanka.

Q.8) Operation Red Rose, in news, is related to which of the following:

a) To enhance the production of red roses.

b) It was an American military operation to capture Iraqi dictator Saddam Hussein.

c) To curb illicit liquor trading and excise-related crimes.

d) It is a Pacific Air Forces-sponsored exercise meant to provide realistic training in a simulated combat environment.

Explanation: Statement c is correct: Operation Red Rose was launched to ensure that there should not be illicit or illegal movement of liquor in Punjab.

Q.9) Consider the following statements with regards to Dadasaheb Phalke awards and choose the correct ones.

1. The award is named after Dhundiraj Govind Phalke, regarded as the 'father of Indian cinema'.

2. Dadasaheb Phalke Award was introduced by the government in 1969 and it was awarded for the first time to Devika Rani, "the first lady of Indian cinema".

3. Dadasaheb Phalke directed India's first feature film Raja Harishchandra (1913).

Options:

- a) 1 & 2 only
- b) 2 & 3 only
- c) 1 & 3 only

d) All of the above

Explanation: The Dadasaheb Phalke Award is India's highest award in the field of cinema. It is presented annually at the National Film Awards ceremony by the Directorate of Film Festivals, an organisation set up by the Ministry of Information and Broadcasting. The recipient is honoured for their "outstanding contribution to the growth and development of Indian cinema".

Presented first in 1969, the award was introduced by the Government of India to commemorate Dadasaheb Phalke's contribution to Indian cinema. Phalke (1870–1944), who is popularly known as and often regarded as "the father of Indian cinema", was an Indian filmmaker who directed India's first full-length feature film, Raja Harishchandra (1913).

The first recipient of the award was actress Devika Rani.

Q.10) Consider the following statements:

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.
2. In India, there is no Intellectual Property Appellate Board.
3. Plant varieties are not eligible to be patented in India.

Which of the statements given above is/are correct?

- a) 1 and 3 only
- b) 2 and 3 only
- c) 3 only**
- d) 1, 2 and 3

Explanation: Article 3(j) the Indian Patents Act excludes from patentability "plants and animals in

whole or in any part thereof other than microorganisms but including seeds, varieties, and species, and essentially biological processes for production or propagation of plants and animals". Hence, Statement 1 is not correct. Plant varieties are not eligible to be patented in India.

The Intellectual Property Appellate Board (IPAB) has been constituted by the Indian Government to hear and resolve the appeals against the decisions of the registrar under the Indian Trademarks Act, 1999 and the Geographical Indications of Goods (Registration and Protection) Act, 1999. Hence, statement 2 is not correct.

October 28

Q.1) The practice of shifting agriculture also known as “podu” is practiced in:

- a) Telangana
- b) Kerala
- c) Goa
- d) Maharashtra

Explanation: The Telangana government has decided to move landless, non-tribal farmers engaged in shifting cultivation inside forests to peripheral areas as it looks to combat deforestation.

Telangana government has red-flagged encroachment of forests by non-tribals, who are indulging in the practice of shifting agriculture (podu).

Several political leaders have raised the issues of shifting agriculture and deforestation wherein encroachers clear a portion of land to raise crops one season and move to a different location next season, thereby clearing large areas of forests.

The government now wants to shift out all farmers from the forests to the periphery by allotting lands to them for cultivation.

Hence, option (a) is the correct answer.

Q.2) With reference to the PM Ayushman Bharat Health Infrastructure Mission, consider the following statements:

1. It is the largest pan-India scheme since 2005 for the creation and improvement of long-term public healthcare infrastructure.
2. The first component is to establish comprehensive surveillance of infectious diseases.
3. At the district level, Integrated Public Health laboratories in all 730 districts will be set up.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only

c) 1 and 3 only

d) 1, 2 and 3

Explanation: Prime Minister Narendra Modi launched the PM Ayushman Bharat Health Infrastructure Mission.

It will seek to address three critical gaps in India’s public health sector: augmenting health facilities for treatment; setting up of Integrated Public Health labs for diagnosis of disease, and expansion of existing research institutions that study pandemics.

It is the largest pan-India scheme since 2005 for the creation and improvement of long-term public healthcare infrastructure. It is meant to be implemented in each district of the country.

The government will spend Rs 64,180 crore on the scheme from the financial year 2021-22 to 2025-26.

What is the first component of the mission?

The first component is to establish comprehensive surveillance of infectious diseases.

At the district level, Integrated Public Health laboratories in all 730 districts will be set up. At the state level, five regional branches and 20 metropolitan units of the National Centre for Disease Control. And at the national level, an Integrated Health Information Platform (IHIP) will be established.

What is the second component of the mission?

The second component is the creation of comprehensive diagnostics and treatment facilities. At the district level, 17,788 new rural health and wellness centres will be set up; 11,024 new urban health and wellness centres will be set up; critical care hospital blocks will be established in each of 602 districts, with a population of more than 5 lakh.

At the state level, 15 health emergency operation centres will be set up. At the national level, two container-based mobile hospitals will be set up; and critical care hospital blocks in 12 Government of India hospitals will be set up — which will also act as mentor institutions for training and capacity building.

What is the third component of the mission ?

The third component of the mission will be on comprehensive pandemic research. At the district level, strengthening of existing 80 viral diagnostics and research labs will be undertaken. At the state level, 15 new bio-safety level III laboratories will be operationalised.

At the national level, four new regional national institutes for virology will be operationalized and a regional research platform (digital) for WHO southeast Asia Region will also be set up.

Hence, option (d) is the correct answer.

Q.3) 'AY.4.2' is a sub-lineage of the Delta variant of which of the following virus?

a) SARS-COV-2 virus

b) Polio virus

c) Ebola virus

d) Nipah virus

Explanation: There are now 75 AY lineages identified, each with different additional defining mutations in their genome. One of these “AY.4” has been steadily growing in proportion in the UK over the last few months, accounting for 63% of new UK cases in the last 28 days.

As per recent reports, health officials in India are also currently investigating the subvariant of the SARS-COV-2, which is thought to be the leading cause of a fresh rise in cases in the UK in the past couple of weeks.

The newest mutation of the SARS-COV-2 virus, 'AY.4.2' is a sub-lineage of the Delta variant of the infectious virus. It's being currently dubbed as the 'Delta Plus' variant.

As per leading scientists based out of Columbia University, as many as 75 AY lineages of coronavirus have been identified till now, but the concerning one in question, AY.4 is one such sub-variant which is rapidly branching out, and most particularly, deemed to be steadily rising in parts of the UK.

Though a lot remains still unknown about the lineage right now, experts do believe that it's origin from the Delta variant could possibly signal

worser COVID-19 symptoms, be more infectious and spread rapidly. While the Delta variant of coronavirus is said to be about 60% more infectious, the AY.4.2 lineage, too, could have a similar fate.

Hence, option (a) is the correct answer.

Q.4) Justice R V Raveendran committee, recently seen in news, is related to:

a) allegations of unauthorised surveillance using Pegasus

b) security Analysis and Investment Management

c) simplification of Transfer Rules in Security Markets

d) investigate black money stashed away abroad

Explanation: A three-member committee has been appointed by the Supreme Court to look into allegations of unauthorised surveillance using Pegasus, a spyware developed by Israeli firm NSO Group.

The committee members are Dr Naveen Kumar Chaudhary, Dean of National Forensic Sciences University in Gandhinagar; Dr Prabakaran P, Professor at Amrita Vishwa Vidyapeetham in Kerala; and Dr Ashwin Anil Gumaste, Institute Chair Associate Professor at Indian Institute of Technology, Bombay.

It will be supervised by retired judge Justice R V Raveendran. The former Supreme Court Justice is a highly-respected member of the law community, and was recently referred by Chief Justice of India NV Ramana as “one of the legends who have increased the prestige of the Supreme Court of India”.

Justice Raveendran served as judge of the Supreme Court from September 9, 2005 to October 15, 2011. Before that, he was Chief Justice of Madhya Pradesh High Court.

Justice Raveendran was part of the R M Lodha Committee appointed by the SC in 2015 to reform the BCCI.

Hence, option (a) is the correct answer.

Q.5) Greenhouse Gas Bulletin Report, is released by which of the following organization:

- a) Indian Meteorological Department (IMD)
- b) International Panel for Climate Change (IPCC)
- c) World Meteorological Organization (WMO)**
- d) Green Peace

Explanation: Statement c is correct: The World Meteorological Organization (WMO) has released its Greenhouse Gas Bulletin Report ahead of COP26 in Glasgow, UK.

Q.6) With reference to National Fund to Control Drug Abuse, consider the following statements:

1. The National Fund to Control Drug Abuse was created in accordance with a provision of the Narcotic Drugs and Psychotropic Substances Act, 1985.
2. The Act states that the fund would be used to combat illicit trafficking of narcotics, rehabilitate addicts and prevent drug abuse.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: Statement 1 is correct: The National Fund to Control Drug Abuse was created in accordance with a provision of the Narcotic Drugs and Psychotropic Substances Act, 1985. Statement 2 is correct: The Act states that the fund would be used to combat illicit trafficking of narcotics, rehabilitate addicts and prevent drug abuse. Recently, The Ministry of Social Justice and Empowerment has recently recommended that the National Fund to Control Drug Abuse be used to carry out de-addiction programmes, rather than just policing activities.

Q.7) Eaglenest wildlife sanctuary, is located in which of the following Indian state:

- a) Odisha
- b) West Bengal
- c) Sikkim
- d) Arunachal Pradesh**

Explanation: Statement d is correct: Eaglenest or Eagle's Nest Wildlife Sanctuary is a protected area of India in the Himalayan foothills of West Kameng District, Arunachal Pradesh. It conjoins Sessa Orchid Sanctuary to the northeast and Pakhui Tiger Reserve across the Kameng river to the east.

Q.8) Bugun Liocichla sometimes seen in news is a species of?

- a) Bird**
- b) Frog
- c) Fish
- d) Butterfly

Explanation: Bugun liocichla was the first bird to be discovered in India since its independence.

Q.9) With reference to Atmospheric Rivers, consider the following statements:

1. It is a flowing column of condensed water vapor in the atmosphere.
2. Global warming will lead to decrease in intensity of atmospheric rivers.

Which of the statements given above is/are correct?

- a) 1 only**
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Statement 1 is correct

Statement 2 is incorrect: Atmospheric rivers are projected to grow longer, wider and wetter in a warming climate.

Q.10) Srikrishna committee, in news, is related to which of the following:

a) To examine issues related to data protection

b) Formulating food policy in the long term

c) Unemployment and Public Welfare

b) To look into GST revenue shortfall faced by states

Explanation: Statement a is correct: Government set up a committee of experts in 2017 under the chairmanship of Justice B.N. Srikrishna. The committee submitted a report titled, 'A Free and Fair Digital Economy: Protecting Privacy, Empowering Indians', a year later along with a draft Data Protection Bill. Its focus was to ensure that citizens know how their data is processed, why it is being processed, for how long such data would be stored, where it's being stored, how secure it would be, etc. The major principles suggested by the committee are informed consent, data minimization, process limitation and the right to be forgotten embedded in the Bill.

October 29

Q.1) Consider the following statements regarding the Agni-5 missile?

- 1) It is a surface-to-surface ballistic missile.
- 2) it is India's Intercontinental Ballistic Missile capable of hitting a 5000km away target.
- 3) India is the only country after the US that possess Intermediate Range Ballistic Missile (IRBM) technology.

Which of the above is/are correct?

- a) 1 & 2 only
- b) 2 & 3 only
- c) 1 & 3 only
- d) All of the above

Explanation: The Agni-5 ballistic missile, with a 5,000-km range, was successfully tested in India: Though inducted over three years ago, India's foremost Agni 5 ballistic missile was tested for the first time by the user agency, the Strategic Forces Command, on Wednesday evening.

The nuclear-capable missile is India's contender for the Intercontinental Ballistic Missile (ICBM) with a range of 5,000 km.

Agni 5 is India's long-range surface-to-surface ballistic missile, which can hit a target with a precision that is 5,000 km away.

This range puts almost the entire China within the missile's target range. Though officially an ICBM needs a missile to have a range of at least 5,500 km, the Agni 5 is India's closest contender for an ICBM, as it can reach countries across other continents, including parts of Africa and Europe.

India began testing the Agni series of missiles in 1989 with the first test for Agni 1, an Intermediate-Range Ballistic Missile, with a range of around 1,000 km. At that time only the US, the erstwhile Soviet Union, China, France and Israel, had IRBM technology.

Q.2) Consider the following statements regarding the Mullaperiyar dam?

- 1) It is built on River Cauvery.

- 2) The Mullaperiyar dam is a dispute between Kerala & Tamil Nadu.

Which of the above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 & 2 only
- d) None of the above

Explanation: Recently, the Supreme Court directed that the maximum water level in the Mullaperiyar dam should be 139.50 ft until November 10.

The dam is at the centre of a decades-old dispute: for Kerala, where it is situated, the dam presents a threat to lakhs living downstream; and for Tamil Nadu, which controls the dam, the water it provides is the lifeline of people in five districts.

The dam is located in the upper reaches of the river Periyar, which flows into Kerala after originating in Tamil Nadu. The reservoir is within the Periyar Tiger Reserve.

The water diverted from the reservoir is first used for power generation in lower Periyar (by Tamil Nadu) before flowing into the Suruliyar, a tributary of the Vaigai river, and then for irrigating nearly 2.08 lakh hectares in Theni and four other districts farther away.

Q.3) Recently seen in the news, World Inequality Report 2022 is released by?

- a) UNESCO
- b) World Bank
- c) IMF
- d) The World Inequality Lab

Explanation: The bottom 50 per cent of the global population owns just 2 per cent of the wealth and 8 per cent of income, while the top 10 per cent of the population owns 76 per cent of total household wealth and captured 52 per cent of total income in 2021, the findings of the latest World Inequality Report 2022 showed.

The report is published by The World Inequality Lab & co-authored by economist Thomas Piketty, has suggested that a “very moderate wealth tax” ranging from 1 per cent of wealth owned over \$1 million to 3 per cent for global billionaires can generate 1.6 per cent of global income.

On the recent proposal of a global minimum corporate tax rate of 15 per cent, the report has said that 15 per cent global minimum rate is progress but remains 1.5-2x lower than the statutory rate.

The 15 per cent minimum corporate tax deal is going in the right direction but we still feel that 15 per cent is very low as compared to the statutory tax rate paid by low-end and middle-size companies/corporations. In most countries, the (tax) rates are 15 per cent to twice that value and are also carve-outs which can reduce the amount of revenues by 20%.

we need to be very careful about how this 15 per cent minimum corporate tax is going to develop in practice effectively. We need to look at carve-outs. We also need to always remember that 15 per cent is very low and there is also discussion on who gets to gain between the north and the south.

As per the estimates in the report, a 15 per cent minimum corporate tax would lead to revenue gains of 83.3 billion euros in the EU, 57.0 billion euros in the US, 6.1 billion euros in China and 0.5 billion euros in India

The global bottom 50 per cent income share remains historically low despite growth in the emerging world in the past decades.

The share of global income going to top 10 per cent highest incomes at the world level has fluctuated around 50-60 per cent between 1820 and 2020 (50 per cent in 1820, 60 per cent in 1910, 56 per cent in 1980, 61 per cent in 2000, 55 per cent in 2020), while the share going to the bottom 50 per cent lowest incomes has generally been around or below 10 per cent (14 per cent in 1820, 7 per cent in 1910, 5 per cent in 1980, 6 per cent in 2000, 7 per cent in 2020), the report said.

The top 0.1 per cent of the global population captures more income than the entire bottom 50 per cent. The average annual wealth growth rates among the poorest half of the population were

between 3 per cent and 4 per cent per year between 1995 and 2021.

The poorest half of the world population only captured 2.3 per cent of overall wealth growth since 1995. The top 1 per cent benefited from high growth rates (3 per cent to 9 per cent per year). This group captured 38 per cent of total wealth growth between 1995 and 2021.

The share of wealth detained by the world’s billionaires rose from 1 per cent of total household wealth in 1995 to nearly 3.5 per cent today.

Q.4) Recently seen in news, which of the following launched Krishi Udan 2.0?

a) Ministry of Civil Aviation

b) Ministry of Finance

c) Ministry of Agriculture

d) Ministry of Commerce & Industry

Explanation: The Ministry of Civil Aviation on Wednesday launched the Krishi Udan 2.0 scheme under which cargo-related infrastructure will be built in airports of the northeast, hilly and tribal regions to assist farmers in transporting agriculture products.

The Krishi Udan scheme, launched by the Centre in September 2020, waived airport charges such as parking charges and terminal navigational landing charges on select Indian airports for air cargo operators if the agricultural cargo is over 50 per cent of the total chargeable weight carried.

The Centre, under Krishi Udan 2.0, has stated that a full waiver of airport charges would be granted at select airports even if the agricultural cargo is less than 50 per cent of the total chargeable weight carried.

Under Krishi Udan 2.0, the Centre said it will facilitate the development of the hub and spoke model in India and create cargo terminals at the airports in a phase-wise manner.

Q.5) Consider the following statements:

1. World Meteorological Organization maintains rotating lists of names which are appropriate for each Tropical Cyclone basin.
2. Tropical cyclones can last for a week or more; therefore there can be more than one cyclone at a time.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2**
- d) Neither 1 nor 2

Explanation: WMO World Meteorological Organization maintains rotating lists of names which are appropriate for each Tropical Cyclone basin. If a cyclone is particularly deadly or costly, then its name is retired and replaced by another one.

Tropical cyclones can last for a week or more; therefore there can be more than one cyclone at a time. Weather forecasters give each tropical cyclone a name to avoid confusion. Each year, tropical cyclones receive names in alphabetical order.

A storm with a name which begins with A would be the first storm to occur in the year.

Q.6) Changing Wealth of Nations report is released by which of the following?

- a) IMF
- b) World Bank**
- c) UNDP
- d) WEF

Explanation: Changing wealth of nations report is released by the World Bank

Q.7) Trigonopterus corona was recently seen in news. Which of the following correctly explains it?

- a) A newly discovered plant species in Western Ghats.
- b) A mutated variant of Corona virus.
- c) A newly discovered beetle in Indonesian island.**
- d) A new butterfly species discovered in Amazon forests.

Explanation: Scientists have discovered a new species of beetle named Trigonopterus corona on the Indonesian island of Sulawesi. Note: It is not the only insect species to be named after the pandemic. In April 2021, a new species of caddisfly (a moth-like insect) was collected near a stream in Kosovo and named Potamophylax coronavirus.

Q.8) Consider the following statements:

1. It is called marsh gas because it is found at the surface of marshy places.
2. Its incomplete combustion yields carbon black, which is widely used as a reinforcing agent in rubber used for automobile tires.
3. It is responsible for creating ground-level ozone, a dangerous air pollutant.

The above statements most appropriately describe which of the following carbon compounds?

- a) Methane**
- b) Carbon tetrachloride
- c) Nitromethane
- d) Chloroform

Explanation: Methane is the simplest hydrocarbon, consisting of one carbon atom and four hydrogen atoms (CH₄). It is a powerful greenhouse gas.

It is flammable, and is used as a fuel worldwide.

Methane is called marsh gas because it is found at the surface of marshy places.

Major Uses:

It is an important source of hydrogen and some organic chemicals.

It reacts with steam at high temperatures to yield carbon monoxide and hydrogen; the latter is used in the manufacture of ammonia for fertilizers and explosives.

The incomplete combustion of methane yields carbon black, which is widely used as a reinforcing agent in rubber used for automobile tires.

Environmental Impact of Methane:

It is 84 times more potent than carbon and doesn't last as long in the atmosphere before it breaks down. This makes it a critical target for reducing global warming more quickly while simultaneously working to reduce other greenhouse gases.

It is responsible for creating ground-level ozone, a dangerous air pollutant.

Hence, option A is correct.

Q.9) Consider the following statements regarding Indian SARS-CoV-2 Genomics Consortium (INSACOG).

1. INSACOG is established by NITI Ayog.
2. It is a multi-laboratory, Pan-India network that tracks the emergence of new variants in the SARS-CoV-2.
3. It also focuses on sequencing of clinical samples to understand the disease dynamics and severity.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3

c) 2, 3

d) 1, 2, 3

Explanation: The Indian SARS-CoV-2 Genomics Consortium (INSACOG), jointly initiated by the Union Health Ministry, and Department of Biotechnology (DBT) with Council for Scientific & Industrial Research (CSIR) and Indian Council of Medical Research (ICMR), is a consortium of 28 National Laboratories to monitor the genomic variations in the SARS-CoV-2.

INSACOG is a multi-laboratory, multi-agency, Pan-India network to monitor genomic variations in the SARS-CoV-2 by a sentinel sequencing effort. The network carries out whole genome sequencing of SARS-CoV-2 virus across the nation, aiding the understanding of how the virus spreads and evolves, and provide information to aid public health response.

INSACOG also aims to focus on sequencing of clinical samples to understand the disease dynamics and severity.

Q.10) Consider the following statements regarding Ex Milan.

1. Milan is the naval exercise hosted by Maldives.
2. It is held biennially and brings together Navies of the countries in the Indian Ocean region.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: India is set to host its largest naval exercise, Ex Milan, early next year for which 46 countries have been invited.

Milan, which began in 1995, is held biennially and brings together Navies of all the countries in the region. It has so far been held at Port Blair but is now being shifted to Visakhapatnam which offers more space and infrastructure.

The invitees include all Indian Ocean littoral states and countries from South East Asia among others.

October 30

Q.1) Recently seen in the news, the indigenously built Sarthak is related to?

- a) Submarine
- *b) Offshore Patrol Vessel**
- c) Ballistic Missile
- d) UAV

Explanation: Indian Coast Guard Ship (ICGS) 'Sarthak' - fourth in the series of five Offshore Patrol Vessels (OPV) being built by Goa Shipyard Limited for the ICG - was commissioned in Goa recently.

ICGS Sarthak will be based at Porbandar in Gujarat and operate on India's western seaboard under the operational and administrative control of the Commander, Coast Guard Region (Northwest).

The indigenously built ship's induction gives a significant boost to the maritime safety and security of the nation as these OPVs are multi-mission platforms capable of undertaking concurrent operations.

Q.2) Which of the following company changed its name to 'Meta'?

- a) Google
- b) Microsoft
- c) Twitter
- d) Facebook**

Explanation: Facebook is now called 'Meta', a change, the company announced at its Connect 2021 conference.

'Meta' in Greek means 'after' or 'beyond'. The overall Facebook company will now simply be called Meta. However, the Facebook app will retain its name and there's no change for other apps.

But Instagram, Facebook, WhatsApp, Messenger are now all under the company 'Meta'— like Google has all its products under the umbrella company Alphabet.

Meta has a new logo as well, which is sort of like the symbol for infinity.

The way Zuckerberg is envisioning the 'metaverse', it will go beyond the internet as we know it, with interoperability, avatars, natural interfaces, teleporting, Home Space, presence, digital goods being some of the key features of this metaverse.

Hence, option (d) is the correct answer.

Q.3) With reference to the India's First Manned Ocean Mission Samudrayan, consider the following statements:

1. Currently only U.S.A, Russia and China have such underwater vehicles for carrying out subsea activities.
2. This niche technology shall facilitate Ministry of Earth Sciences in carrying out deep ocean exploration of the non-living resources located at a depth between 1000 and 5500 meters.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: Union Minister Dr Jitendra Singh launched India's First Manned Ocean Mission Samudrayan at Chennai.

With the launch of this Unique Ocean Mission, India joins the the elite club of nations such as USA, Russia, Japan, France and China to have such underwater vehicles for carrying out subsea activities.

This niche technology shall facilitate Ministry of Earth Sciences, MoES in carrying out deep ocean exploration of the non-living resources such as polymetallic manganese nodules, gas hydrates, hydro-thermal sulphides and cobalt crusts, located at a depth between 1000 and 5500 meters.

The preliminary design of the manned submersible MATSYA 6000 is completed and realization of vehicle is started with various organization including ISRO, IITM and DRDO roped-in to support the development.

Sea trials of 500 metre rated shallow water version of the manned submersible are expected to take place in the last quarter of 2022 and the MATSYA 6000, the deep water manned submersible will be ready for trials by the second quarter of 2024.

With the advancing subsea technologies, the recent Fendouzhe manned submersible developed by China in 2020 has touched ~11000m water depths.

Hence only statement 2 is correct.

Q.4) With reference to Agni-5, Consider the following statements:

1. It is India's longest-range surface-to-surface ballistic missile
2. It is an Indian nuclear-capable intercontinental ballistic missile (ICBM)
3. It is developed by the Defence Research and Development Organisation

Which of the statements given above is/are correct?

- a) 1 and 3 only
- b) 2 and 3 only
- c) 2 only
- d) 1, 2 and 3**

Explanation: Agni-V successfully test-fired

India on Wednesday successfully test-fired its longest range surface-to-surface ballistic missile, Agni-V. "A successful launch of the surface-to-surface ballistic missile, Agni-5, was carried out from APJ Abdul Kalam Island, Odisha. The three-stage solid-fuelled engine missile is capable of striking targets at ranges up to 5,000 km.

It is an Indian nuclear-capable intercontinental ballistic missile (ICBM) developed by the Defence Research and Development Organisation.

Q.5) With respect to The Human Capital Index (HCI), consider the following statements:

1. The index is a summary measure of the amount of human capital that a child born today can expect to acquire by age 18, given the risks of

poor health and poor education that prevail in the country where she lives.

2. Ranging between 0 and 1, the index takes the value 1 only if a child born today can expect to achieve full health (defined as no stunting and survival up to at least age 60) and achieve her formal education potential (defined as 14 years of high-quality school by age 18).

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2**

Explanation: The Human Capital Index (HCI)

The HCI provides a new definition of human capital and quantifies the contribution of health and education to the productivity of the next generation of workers. Countries can use it to assess how much income they are foregoing because of Human Capital gaps, and how much faster they can turn these losses into gains if they act now.

Human Capital Project (HCP), a global effort to accelerate more and better investments in people for greater equity and economic growth.

What is the Human Capital Index? How is it calculated?

The index is a summary measure of the amount of human capital that a child born today can expect to acquire by age 18, given the risks of poor health and poor education that prevail in the country where she lives.

Ranging between 0 and 1, the index takes the value 1 only if a child born today can expect to achieve full health (defined as no stunting and survival up to at least age 60) and achieve her formal education potential (defined as 14 years of high-quality school by age 18).

Q.6) Which of the following is/are the forms of cyber-attacks?

1. Phishing

2. Zero-day exploit
3. Man-in-the-middle attack
4. Malware

Select the correct answer using the code given below”:

- a) 1, 2 and 4 only
- b) 2, 3 and 4 only
- c) 1 and 4 only
- d) 1, 2, 3 and 4**

Explanation: Malware

Malware is a term used to describe malicious software, including spyware, ransomware, viruses, and worms. Malware breaches a network through vulnerability, typically when a user clicks a dangerous link or email attachment that then installs risky software. Once inside the system, malware can do the following:

Phishing

Phishing is the practice of sending fraudulent communications that appear to come from a reputable source, usually through email. The goal is to steal sensitive data like credit card and login information or to install malware on the victim’s machine. Phishing is an increasingly common cyber threat.

Man-in-the-middle attack

Man-in-the-middle (MitM) attacks, also known as eavesdropping attacks, occur when attackers insert themselves into a two-party transaction. Once the attackers interrupt the traffic, they can filter and steal data.

Two common points of entry for MitM attacks:

On unsecure public Wi-Fi, attackers can insert themselves between a visitor’s device and the network. Without knowing, the visitor passes all information through the attacker.

Once malware has breached a device, an attacker can install software to process all of the victim’s information.

Denial-of-service attack

A denial-of-service attack floods systems, servers, or networks with traffic to exhaust resources and

bandwidth. As a result, the system is unable to fulfill legitimate requests. Attackers can also use multiple compromised devices to launch this attack. This is known as a distributed-denial-of-service (DDoS) attack.

SQL injection

A Structured Query Language (SQL) injection occurs when an attacker inserts malicious code into a server that uses SQL and forces the server to reveal information it normally would not. An attacker could carry out a SQL injection simply by submitting malicious code into a vulnerable website search box.

Zero-day exploit

A zero-day exploit hits after network vulnerability is announced but before a patch or solution is implemented. Attackers target the disclosed vulnerability during this window of time. Zero-day vulnerability threat detection requires constant awareness.

DNS Tunneling

DNS tunneling utilizes the DNS protocol to communicate non-DNS traffic over port 53. It sends HTTP and other protocol traffic over DNS. There are various, legitimate reasons to utilize DNS tunneling. However, there are also malicious reasons to use DNS Tunneling VPN services. They can be used to disguise outbound traffic as DNS, concealing data that is typically shared through an internet connection. For malicious use, DNS requests are manipulated to exfiltrate data from a compromised system to the attacker’s infrastructure. It can also be used for command and control callbacks from the attacker’s infrastructure to a compromised system.

Q.7) Blue carbon is associated with which of the following?

1. Mangroves
2. Oceans
3. Tidal marshes

Select the correct answer from the codes given below:

- a) 1 and 2 only
- b) 3 only
- c) 2 only
- d) 1, 2 and 3**

Explanation: The coastal ecosystems of mangroves, tidal marshes and seagrass meadows contain large stores of carbon deposited by vegetation and various natural processes over centuries. These ecosystems sequester and store more carbon – often referred to as ‘blue carbon’ – per unit area than terrestrial forests.

The ability of these vegetated ecosystems to remove carbon dioxide (CO₂) from the atmosphere makes them significant net carbon sinks, and they are now being recognised for their role in mitigating climate change.

Q.8) Which of the following are the Green House Gases?

- a) Carbon dioxide, Ozone and Nitrogen
- b) Water Vapor, Methane and Nitrous oxide**
- c) Ozone, carbon Monoxide and Sulphur Oxide
- d) Methane, Ozone and Nitrogen dioxide

Explanation: Statement b is correct: The Primary GHGs are: Water Vapour, Carbon dioxide, Methane, Nitrous oxide and Ozone Other GHGs are carbon monoxide, fluorinated gases, chlorofluorocarbons (CFCs), black carbon (soot), and brown carbon. Among the greenhouse gases, only water vapour can absorb both incoming (UV) and outgoing (infrared) radiation.

Q.9) CAATSA has been imposed on which of the following countries?

- 1. Afghanistan
- 2. Iran
- 3. North Korea

- 4. Russia
- 5. Syria

Options:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only**
- c) 1, 3, 4 and 5 only
- d) 1, 2, 3, 4 and 5

Explanation: The Countering America’s Adversaries Through Sanctions Act is a United States federal law that imposed sanctions on Iran, North Korea, and Russia.

CAATSA authorises the U.S. administration to impose sanctions on countries that indulge in defence trade with the above three countries.

Q.10) The Ministries/Departments of the Government are created by the

- a) President**
- b) Prime Minister
- c) Council of Ministers
- d) Cabinet Secretary

Explanation: The Ministries/Departments of the Government of India are created by the President on the advice of the Prime Minister under the Government of India (Allocation of Business Rules) 1961.