



**IASBABA'S
DAILY CURRENT
AFFAIRS QUIZ
COMPILATION
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Q.1) 'Gongadi Shawl' recently seen in news is an ancient woolcraft of

- a) Telangana
- b) Jammu and Kashmir
- c) Chhattisgarh
- d) Rajasthan

Q.1) Solution (a)

Gongadi Shawl is a traditional woolen shawl woven by the indigenous Kuruma and Kuruba communities of Telangana. The wool of the indigenous Deccan sheep locally known as Nalla Gorre is used in its manufacture. It is manufactured organically without using natural or synthetic colors. The tough gongadi usually lasts for more than a decade and acquires this unique quality from the craft of hand weaving. One of the unique natures of gongadi is that it does not fade but grows darker in time.

Context - Recently, Telangana's woollen gongadi shawls has been refashioned into shoes for farmers by alumni of the National Institute of Design, Ahmedabad.

Q.2) With reference to 'Shanghai Cooperation Organisation', consider the following statements

1. It is the world's largest regional organization in terms of geographic scope and population
2. The official working languages of SCO are Chinese and English
3. The Council of Heads of State is the top decision-making body in the SCO

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

Q.2) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
The Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic, international security and defence organization. It is the world's largest regional organization in terms of geographic scope and population, covering approximately 60% of the	The official languages of the SCO are Chinese and Russian.	The Council of Heads of State is the top decision-making body in the SCO. This council meets at the SCO summits, which are held each year in one of the member states' capital cities.

area of Eurasia, 40% of the world population. Its combined GDP is around 20% of global GDP.		
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Context - Recently, the Ministry of External Affairs announced that India will host the annual summit of the Shanghai Cooperation Organisation (SCO) in the virtual format on July 4, 2023.

Q.3) Consider the following statements with respect to 'Barents Sea'

1. It is located between the coasts of Norway and Denmark
2. It is a shallow sea with high levels of salinity

Choose the correct statement(s)

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

Q.3) Solution (b)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Correct
Barents sea is a marginal sea of the Arctic Ocean. It is located along the northern coasts of Norway and Russia and divided between Norwegian and Russian territorial waters.	It is a shallow sea, with an average depth of 230 metres. The sea's deepest point is 600 m at the Bear Island Trench. The Barents Sea faces a subarctic climate. The waters of the Barents Sea have a high salinity of 34 parts per 1,000.

Context - Underwater volcano erupting with mud, fluids from Earth's interior was discovered recently in Barents Sea

Q.4) With reference to 'Purana Qila', consider the following statements

1. The construction of the structure started in the reign of Sher Shah Suri and was completed by Akbar
2. The architecture of the fort is a happy blend of Hindu and Muslim styles of architecture
3. It is one of the oldest forts in Agra and built on the banks of river Yamuna

How many of the statements given above are correct?

- a) Only one
- b) Only two

- c) All three
- d) None

Q.4) Solution (a)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Incorrect
Purana Qila is one of the oldest and ancient forts in Delhi, India. However, the exact time period of foundation of the original structure is in antiquity and is unknown, though it was re-built under the reign of the second Mughal Emperor Humayun and Sur Emperor Sher Shah Suri.	An amazing feature of the Purana Qila are the three gates that are a display of a happy blend of Hindu and Muslim styles of architecture. – Bara Darwaza or the Big Gate facing west, the Humayun Gate facing south, and the Talaqqi Gate, which is often referred to as the forbidden gate. All of the gates are double-storeyed and comprise of huge semi-circular bastions flanking either of their sides.	Purana Qila is located on the South Eastern part of the present city of New Delhi. It is one of the oldest forts in Delhi and built on the banks of river Yamuna.

Context - A recent round of excavations at the site of Delhi's Purana Qila or Old Fort has uncovered evidence of the continuous history of the city since the pre-Mauryan era.

Q.5) Consider the following statements about 'Babool tree'

1. It is a perennial, evergreen tree which is indigenous to Mexico
2. It requires a lot of water for its growth and hence cannot be used for combating desertification

Select the correct statement(s)

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

Q.5) Solution (d)**Statement Analysis:**

Statement 1	Statement 2
Incorrect	Incorrect
Babool or gum Arabic (<i>Acacia nilotica</i>) is a perennial, evergreen tree which is indigenous to Indian Sub-continent as well as in Tropical Africa, Burma, Sri Lanka, Saudi Arabia, Egypt and West and East Sudan. It occurs in tropical and subtropical regions of India.	Babool helps in the reclamation of degraded areas by fixing nitrogen and acting as a windbreak. Planting babool trees benefits biodiversity and helps combat desertification

Context - A study by researchers from Thailand and India suggests that babool seed oil could be an environment-friendly alternative to chemicals to control major farm pests

Q.6) Consider the following statements about 'GOBARdhan Scheme'

Statement 1 - It adopts a whole-of-government approach and aims to convert waste into wealth thereby promoting a circular economy

Statement 2 - The scheme aims to generate wealth and energy by converting cattle dung, agricultural residue, and other organic waste into Biogas, CBG and bio-fertilizers

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- Statement-I is correct but statement II is incorrect
- Statement -I is incorrect but Statement -II is correct

Q.6) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Galvanizing Organic Bio-Agro Resources Dhan, is a crucial umbrella initiative of the Government of India. It adopts a whole-of-government approach and aims to convert waste into wealth, thereby promoting a circular economy.	The government launched the Gobardhan scheme in 2018 as a national priority project under the Swachh Bharat Mission Grameen-Phase II program. It aims to generate wealth and energy by converting cattle dung, agricultural residue, and other organic waste into Biogas, CBG and bio-fertilizers.

Context - Union Minister for Jal Shakti has launched the Unified Registration Portal for GOBARdhan recently

Q.7) Consider the following statements with respect to 'National Electricity Plan'

1. It has been notified by The Central Electricity Authority (CEA)
2. The share of renewable based energy of the total installed capacity of will exceed conventional energy by 2026-27
3. The average emission factor is expected to reduce over the next ten years

How many of the statement(s) given above is/are correct

- a) Only one
- b) Only two
- c) Only three
- d) None

Q.7) Solution (c)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
As per section 3(4) of the Electricity Act, 2003, Central Electricity Authority has been mandated to prepare a National Electricity Plan (NEP) in accordance with the National Electricity Policy and notify such plan once in five years.	Based on generation planning studies carried out under the purview of preparation of National Electricity Plan for the period of 2022-27, the likely Installed Capacity for the year 2026-27 is 609,591 MW comprising of 273,038 MW of Conventional capacity (Coal-235,133MW, Gas-24,824MW, Nuclear-13,080MW) and 336,553 MW of Renewable based Capacity (Large Hydro-52,446 MW, Solar-185,566 MW Wind-72,895 MW, Small Hydro-5,200 MW, Biomass-13,000MW, Pump Storage Plants (PSP projects) -7446MW) along with BESS capacity (Battery Energy Storage System) of 8,680MW/34,720 MWh.	The average emission factor is expected to reduce to 0.548 kg CO ₂ /kWh _{net} in the year 2026-27 and to 0.430 kg CO ₂ /kWh _{net} by the end of 2031-32.

Context - Central Electricity Authority notifies the National Electricity Plan for the period of 2022-32

Q.8) With reference to 'Yakshagana', consider the following statements

1. It is believed to have evolved from pre-classical music during the period of the Bhakti movement
2. It is a traditional theatre form of Karnataka

Select the correct statement(s)

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

Q.8) Solution (c)**Statement Analysis:**

Statement 1	Statement 2
Correct	Correct
It is believed to have evolved from pre-classical music and theatre during the period of the Bhakti movement. Its stories are drawn from Ramayana, Mahabharata, Bhagavata and other epics from both Hindu and Jain and other ancient Indic traditions.	Yakshagana is a traditional theatre, developed in Dakshina Kannada, Udupi, Uttara Kannada, Shimoga and western parts of Chikmagalur districts, in the state of Karnataka and in Kasaragod district in Kerala that combines dance, music, dialogue, costume, make-up, and stage techniques with a unique style and form

Context - It is curtains down on the six-month-long daily performances by professional Yakshagana troupes in Karnataka.

Q.9) With reference to 'National Startup Awards 2023', consider the following statements

1. It is given by the Department for Promotion of Industry and Internal Trade under The Ministry of Skill Development and Entrepreneurship
2. The winners and finalists will be provided with handholding support across focus areas such as mentorship, investor connect and procurement support among others
3. Any startup incubated in the last five years is eligible to apply for the award

How many statement(s) given above is/are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.9) Solution (a)**Statement analysis:**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Incorrect

It is given by the Department for Promotion of Industry and Internal Trade under The Ministry of Commerce and Industry	A cash prize of INR 10 lakhs will be awarded to one winning startup in each of the categories by DPIIT. Every edition of the National Startup Awards provides the winners and finalists with curated handholding support, which is across focus areas such as mentorship, investor connect, corporate connect, government pilot and procurement support among others. The startups will also be given priority for participation in various national and international startup events where DPIIT is participating.	The startup should be a DPIIT recognized startup. The entity must submit its certificate of recognition. The entity must submit the Certificate of Incorporation issued by the Ministry of Corporate Affairs or Certificate of Registration from the Registrar of Firms of respective state. The entity must have a hardware or software product or a process solution that is present in the market.
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Context - The Department for Promotion of Industry and Internal Trade (DPIIT) extended the deadline for submission of applications for the National Startup Awards 2023 to June 15, 2023.

Q.10) Which of the following statements regarding 'Higgs Boson' is incorrect

- It has a mass higher than that of proton
- It is the only elementary particle with a spin
- It is sometimes referred to as the "God particle"
- It is a "force carrier" particle that comes into play when particles interact with each other

Q.10) Solution (b)

- It is one of the 17 elementary particles that make up the Standard Model of particle physics, which is scientists' best theory about the behaviors of the universe's most basic building blocks. Higgs boson plays such a fundamental role in subatomic physics that it is sometimes referred to as the "God particle"
- The Higgs boson has a mass of 125 billion electron volts — meaning it is 130 times more massive than a proton, according to CERN.
- The Higgs Boson is the only elementary particle with no spin.
- It is a "force carrier" particle that comes into play when particles interact with each other, with a boson exchanged during this interaction.

Context - Scientists at CERN found the first evidence of the rare process by which the Higgs boson decays into a Z boson and a photon.

Q.11) Consider the following statements with respect to 'Petroleum Coke (Pet Coke)'

- It is a final carbon-rich solid material and residual waste material extracted from oil refining

2. It emits toxic gases like carbon dioxide, nitrous oxide, mercury, arsenic and chromium on burning
3. It is low in calorific value and easy to transport and store

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.11) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
It is a final carbon-rich solid material and residual waste material extracted from oil refining. It is a spongy, solid residue from oil distillation that can be burned for fuel similar to coal.	It releases toxic gases like carbon dioxide, nitrous oxide, mercury, arsenic, chromium, nickel, and hydrogen chloride after burning.	It is high in calorific value and easy to transport and store.

Context - The Union government of India permitted the import of pet coke for making graphite anode material for lithium-ion batteries.

Q.12) Consider the following statements with respect to 'Kavach System'

1. It is an indigenously developed Automatic Train Protection (ATP) system developed by the Research Design and Standards Organisation
2. It is a set of electronic devices and Radio Frequency Identification devices installed in locomotives as well the tracks which communicate through ultra-high radio frequencies
3. The system can alert the loco pilot, take control of the brakes and bring the train to a halt automatically when it notices another train on the same line

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) Only three
- d) None

Q.12) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Kavach System is an indigenously developed Automatic Train Protection (ATP) system. Kavach was developed by the Research Design and Standards Organisation (RDSO) under Indian Railway (IR) in collaboration with Medha Servo Drives Pvt Ltd, HBL Power Systems Ltd and Kernex Microsystems.	It is a set of electronic devices and Radio Frequency Identification devices installed in locomotives, in the signalling system as well the tracks, that talk to each other using ultra-high radio frequencies to control the brakes of trains and also alert drivers, all based on the logic programmed into them.	The system can alert the loco pilot, take control of the brakes and bring the train to a halt automatically when it notices another train on the same line within a prescribed distance. The device also continuously relays the signals ahead to the locomotive, making it useful for loco pilots in low visibility.

Context – It was in news due to the recent train accident in Odisha

Q.13) With reference to 'Seaweeds', consider the following statements

Statement 1 - Seaweeds are generally anchored to the sea bottom or other solid structures by rootlike "holdfasts"

Statement 2 - Substances found in seaweed help increase the production of a protein that metabolises fat effectively

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- Statement-I is correct but statement II is incorrect
- Statement -I is incorrect but Statement -II is correct

Q.13) Solution (b)**Statement Analysis:**

Statement 1	Statement 2
Correct	Correct
Seaweeds are generally anchored to the sea bottom or other solid structures by rootlike "holdfasts," which perform the sole function	Animal studies have found that substances found in seaweed help increase the production of a protein that metabolises fat effectively. Both the statements are

of attachment and do not extract nutrients as do the roots of higher plants.

independent of each other. Hence, statement 2 is not the correct explanation of statement 1

Context - Clusters of brown Sargassum seaweed reported to be infested by flesh-eating bacteria were recently found awash in Florida.

Q.14) Consider the following statements about 'Myristica swamps'

1. These swamps are found in the evergreen forest patches and are included in the littoral and swamp forest groups
2. These unique habitats is found only in Western Ghats region of India

Select the correct statement(s)

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

Q.14) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
Myristica swamps are found in the Sacred Groves or evergreen forest patches and are included in the littoral and swamp forest groups. These forests are characterized by trees with large protruding roots jutting out of waterlogged soil which remains inundated throughout the year.	In India, these unique habitats are found in the Western Ghats and a smaller distribution exists in the Andaman and Nicobar Islands.

Context - Found in the sacred groves of Kerala, the Myristica swamps support a unique biodiversity but are threatened by climate change and human intervention

Q.15) Which of the following statements regarding 'Sal trees' is incorrect

- a) It is a large evergreen tree which is seldom completely leafless
- b) It requires well-drained, moist and sandy loam soil
- c) It is indigenous to India and occurs in two main regions separated by Gangetic plain
- d) The resin of this tree can be used in the indigenous system of medicine

Q.15) Solution (a)

- It is a large sub-deciduous tree which is seldom completely leafless.
- It requires well-drained, moist and sandy loam soil. It survives upto a maximum temperature of 36°C to 44°C and minimum temperature of 11°C to 17°C and it needs an average rainfall of 1000 mm to 3500 mm per annum.
- It is indigenous to India and occurs in two main regions separated by Gangetic plain namely the northern and central Indian regions.
- The resin of this tree is used in the indigenous system of medicine.

Context - Government-owned Tribal Development Co-operative Corporation of Odisha Ltd (TDCCOL) decided to procure sal seeds (*Shorea robusta*) from nine Odisha districts.

Q.16) Consider the following statements with respect to 'Varunastra'

1. It is ship launched thermally-propelled anti-submarine torpedo capable of targeting quiet submarines
2. The torpedo's guidance system uses active-passive acoustic homing and GPS/NavIC satellite guidance
3. It was designed and manufactured by Naval Science and Technological Laboratory (NSTL) under the Defence Research and Development Organisation (DRDO)

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.16) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Incorrect
Varunastra is a ship launched, heavy weight, electrically-propelled anti-submarine torpedo capable of targeting quiet submarines, both in deep and shallow waters in an intense counter-measures environment.	The torpedo's guidance system uses active-passive acoustic homing, wire guidance, and GPS/NavIC satellite guidance. Weighing around 1.5 tonnes, it can carry a 250 kg (550 lb) high-explosive warhead and has a maximum operating depth of 600 metres (2,000 ft). It has long range with multi manoeuvring capabilities.	It was designed and developed by Vizag-based Naval Science and Technological Laboratory (NSTL) under the Defence Research and Development Organisation (DRDO) and is manufactured by Bharat Dynamics Ltd (BDL).

Context - Indigenously designed and developed heavy-weight torpedo (HWT) Varunastra was recently successfully test-fired with a live warhead against an undersea target by the Indian Navy.

Q.17) With reference to 'Homo Naledi', consider the following statements

Statement 1 - Homo naledi shared some similarities with humans, like walking upright and manipulating objects by hand

Statement 2 - Homo naledi appears to have lived near the same time as early ancestors of modern humans

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- Statement-I is correct but statement II is incorrect
- Statement -I is incorrect but Statement -II is correct

Q.17) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Homo naledi shared some similarities with humans, like walking upright and manipulating objects by hand, but members of the species had smaller heads, a shorter stature, and were thinner and more powerfully built.	Homo naledi appears to have lived near the same time as early ancestors of modern humans. Both the statements are independent of each other. Hence, statement 2 is the correct explanation of statement 1

Context - Palaeoanthropologists have uncovered evidence that suggests that Homo naledi, an extinct human species that lived hundreds of thousands of years ago, may have buried their dead and carved meaningful symbols in a cave.

Q.18) UNESCO's Michel Batisse Award is given in the field of

- Heritage sites conservation
- Biosphere reserve management
- Anti- poaching initiatives
- Renewable energy adoption

Q.18) Solution (b)

The award is given every two years during the MAB council in memory of Dr Michel Batisse for outstanding achievement in the management of biosphere reserves in line with the recommendations of the Seville Strategy.

Context - An IFS officer Jagdish S Bakan won the prestigious Michel Batisse award 2023 for biosphere reserve management from UNESCO.

Q.19) Consider the following statements about 'Price Support Scheme (PSS)'

1. There is no procurement ceiling for tur, urad and masur under Price Support Scheme (PSS) operations for 2023-24
2. State Governments can also appoint state agencies to undertake PSS operations
3. The duration of PSS operations for a particular crop and season shall be for a maximum period of 90 days

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.19) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
In a significant step towards enhancing domestic production of pulses, the government has removed the procurement ceilings of 40% for tur, urad and masur under Price Support Scheme (PSS) operations for 2023-24. The decision, in effect, assures the procurement of these pulses from	Besides, announcement of MSP, the Government also organizes procurement operations of these agricultural commodities through various public and cooperative agencies such as Food Corporation of India (FCI), National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), National Consumer Cooperative Federation of India Ltd.	The DAC shall be responsible to decide the duration of the scheme, crop-wise, state-wise, depending upon the seasonality/climatic/geographical/ locational advantages and disadvantages. The duration of PSS operations for a particular crop and season shall be for a maximum period of 90 days

farmers at MSP without ceilings.	(NCCF), and Small Farmers Agro Consortium (SFAC). Besides, State Governments also appoint state agencies to undertake PSS operations.	
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Context - Government removed the ceiling for procurement of Tur, Urad and Masur under Price Support Scheme (PSS) for 2023-24

Q.20) Consider the following statements about 'Securities Appellate Tribunal (SAT)'

1. It is a statutory body established under the provisions of the Administrative Tribunals Act of 1985
2. It hears and disposes of appeals against orders passed by the Pension Fund Regulatory and Development Authority (PFRDA)

Select the correct statement(s)

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

Q.20) Solution (b)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Correct
Securities appellate tribunal is a statutory body established under the provisions of the Securities and Exchange Board of India Act, 1992. The presiding officer and other members of the Board are elected by the selection committee by the Prime Minister of India. Jurisdiction of Securities Appellate Tribunal extends to companies situated across India.	It hears and disposes of appeals against orders passed by the Securities and Exchange Board of India, the Pension Fund Regulatory and Development Authority (PFRDA) and the Insurance Regulatory Development Authority of India (IRDAI).

Context – The Tribunal was in news recently

Q.21) Consider the following statements with respect to 'Antardrishti dashboard'

1. It provides the necessary knowledge to evaluate the development of financial inclusion by recording relevant data

2. It will assess the degree of financial exclusion at a local level across the nation so that such places may be addressed
3. It was launched by Reserve Bank of India

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.21) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Antardrishti dashboard provides the necessary knowledge to evaluate and track the development of financial inclusion by recording relevant data.	It will also make it possible to assess the degree of financial exclusion at a local level across the nation so that such places may be addressed.	It was launched by Reserve Bank of India

Context - The Reserve Bank of India Governor launched a financial inclusion dashboard named 'Antardrishti'

Q.22) Consider the following parameters

1. Human Resources
2. Training & Capacity Building
3. Consumer Empowerment
4. Packaging and Disposal

How many of the above mentioned parameters does Food Safety Index take into account?

- a) Only two
- b) Only three
- c) All four
- d) None

Q.22) Solution (b)

Food Safety Index is based on the performance of the State/ UT on five significant parameters, namely, **Human Resources and Institutional Data, Compliance, Food Testing – Infrastructure and Surveillance,**

Training & Capacity Building and Consumer Empowerment. Packaging and Disposal is not a parameter. The Index is a dynamic quantitative and qualitative benchmarking model that provides an objective framework for evaluating food safety across all States/UTs. The Index is an annual assessment released by the Food Safety and Standards Authority of India (FSSAI).

Context - Union Health Minister released the fifth State Food Safety Index recently

Q.23) Consider the following statements about 'Mission on Advanced and High-Impact Research (MAHIR)'

1. The mission aims to develop emerging technologies in the power sector indigenously for deployment outside India
2. The mission will not receive funding from any budgetary resources
3. Geo-thermal energy and solid state refrigeration are some of the areas identified for research

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.23) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
MAHIR aims to quickly identify emerging technologies in the power sector and develop them indigenously, at scale, for deployment within and outside India.	The Mission will be funded by pooling financial resources of the Ministry of Power, Ministry of New and Renewable Energy and the Central Public Sector Enterprises under the two Ministries. Additional funding will be mobilized from the Government of India's budgetary resources.	The following eight areas are identified for research: Alternatives to Lithium-ion storage batteries Modifying electric cookers / pans to suit Indian cooking methods Green hydrogen for mobility (High Efficiency Fuel Cell) Carbon capture Geo-thermal energy Solid state refrigeration. Nano technology for EV battery Indigenous CRGO technology

Context - Mission on Advanced and High-Impact Research (MAHIR) launched to leverage Emerging Technologies in Power Sector

Q.24) Consider the following statements about 'Commission of Railway Safety (CRS)'

1. It is an executive body which carries out inspectorial, investigatory and advisory functions related to railway safety
2. It operates under the administrative control of the Ministry of Railways

Select the correct statement(s)

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

Q.24) Solution (d)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Incorrect
Commissioner of Railway Safety (CRS) is a government body responsible for railway safety oversight and carries out inspectorial, investigatory, and advisory functions as mandated by the Railways Act, 1989.	The CRS is headquartered in Lucknow, Uttar Pradesh, and operates under the administrative control of the Ministry of Civil Aviation (MoCA). It is, however, worth noting that the CRS does not report to the Ministry of Railways of the Railway Board. The reason or principle behind this, put simply, is to keep the CRS insulated from the influence of the country's railway establishment and prevent conflicts of interest.

Context - Investigation into the recent tragic train accident in Odisha, the deadliest train crash in India in over two decades, is being conducted by the Commissioner of Railway Safety for the south-eastern circle

Q.25) 'Kilauea Volcano' which erupted recently is located in

- a) Philippines
- b) Indonesia
- c) New Zealand
- d) Hawaii

Q.25) Solution (d)

Kilauea Volcano is the youngest and most active Hawaiian shield volcano, located on the southern part of the Island of Hawai'i, known as Big Island. It is near-constantly erupting from vents either on its summit (caldera) or on the rift zones.

Context - The Kilauea volcano on Hawaii's Big Island erupted recently, according to an advisory from the U.S. Geological Survey (USGS).

Q.26) Consider the following statements with respect to 'National Training Conclave'

1. The Conclave aims to foster collaboration among civil servants from different states and at all levels
2. The Conclave is being hosted by the Civil Services Board as part of Mission Karmayogi

Select the correct statement(s)

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

Q.26) Solution (d)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Incorrect
The Conclave aims to foster collaboration among civil services training institutes and strengthen the training infrastructure for civil servants across the country. The Conclave is being hosted by the Capacity Building Commission. Civil Servants from the Central government departments, State governments, and local governments, as well as experts from the private sector, will take part in the deliberations.	The Conclave is being hosted by the Capacity Building Commission. The conclave is part of the National Programme for Civil Services Capacity Building (NPCSCB) - 'Mission Karmayogi'.

Context - Prime Minister will inaugurate the first National Training Conclave at the International Exhibition and Convention Centre Pragati Maidan, New Delhi.

Q.27) Consider the following statements with respect to 'Central Electricity Regulatory Commission (CERC)'

1. It is a statutory body functioning with quasi-judicial status under the Energy Act 2003
2. It was established to regulate the tariff of any generating company which has a composite scheme for power generation
3. The CERC is also responsible for development of the power market in India

How many of the statement(s) given above are correct

- a) Only one

- b) Only two
- c) All three
- d) None

Q.27) Solution (b)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Correct
CERC is a key regulator of the power sector in India, is a statutory body functioning with quasi-judicial status under the Electricity Act 2003. It was initially constituted in 1998 under the Ministry of Power's Electricity Regulatory Commissions Act, 1998	CERC was instituted primarily to regulate the tariff of Power Generating companies owned or controlled by the government of India, and any other generating company which has a composite scheme for power generation and interstate transmission of energy	In accordance with the Electricity Act 2003, the CERC is also responsible for development of the power market in India for efficient, transparent and competitive price discovery through power exchanges.

Context - The Ministry of Power has asked the Central Electricity Regulatory Authority (CERC) to initiate the process of coupling multiple power exchanges.

Q.28) With reference to 'Dimethyl Ether (DME)', consider the following statements

1. It is a synthetically produced alternative to diesel for use in specially designed compression ignition engines
2. The DME-fuelled engine does not emit any particulate or soot matter and almost no smoke
3. DME has a very high cetane number which is measure of the fuel's ignitibility in compression ignition engines

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.28) Solution (b)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
Dimethyl Ether is a synthetically produced alternative to diesel for use in specially designed compression ignition diesel engines. It can be a viable alternative fuel and engine technology to adapt to conventional diesel engines used in India's economy's agricultural and transport sectors.	The DME-fuelled engine emitted extremely low particulate and soot emissions and almost no smoke without using expensive exhaust gas after-treatment devices and advanced engine technologies.	Dimethyl Ether has a very high cetane number, which is a measure of the fuel's ignitability in compression ignition engines. Under normal atmospheric conditions, DME is a colorless gas.

Context - Researchers at IIT Kanpur developed a 100% DME-fuelled engine with a mechanical fuel injection system.

Q.29) 'Operation Amanat' which was launched recently is related to

- a) Retrieval of valuable articles
- b) Rescue and Rehabilitation
- c) Disabled friendly stations
- d) Operational safety

Q.29) Solution (a)

Under the Operation Amanat initiative, the Railway Protection Force has taken a novel initiative to make it easier for the passengers to get back their lost luggage. It helps to track lost belongings of passengers. The details of lost luggage along with photos are uploaded by RPF personnel of the respective Divisions.

Context – The operation was conducted recently.

Q.30) Consider the following statements with respect to 'Bagh Print'

1. It is a wooden hand-block print which is believed to have started around Indus Valley times
2. Bagh print motifs are typically geometric, paisley, or floral compositions design

Select the correct statement(s)

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

Q.30) Solution (c)

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Bagh print is a traditional Indian handicraft originating in Bagh, Dhar district of Madhya Pradesh, India. The wooden hand-block print is believed to be some 1,000 years old, originating around the Indus Valley through the Khatri community, who later settled in Madhya Pradesh's Dhar district.	The process is characterised by hand printed wood block relief prints with naturally sourced pigments and dyes. Bagh print motifs are typically geometric, paisley, or floral compositions design, dyed with vegetable colours of red and black over a white background, and is a popular textile printing product.

Context - Women learn to make Bagh print bags under 'Safe Tourist Places project'**Q.31) Consider the following bodies**

1. Comptroller and Auditor General
2. Committee on Public Undertakings
3. Finance Commission
4. Public Affairs Committee

How many of the body(ies) mentioned above is/are Supreme Audit Institutions

- a) Only one
- b) Only two
- c) Only three
- d) None

Q.31) Solution (a)

Supreme Audit Institutions (SAIs) are public oversight institutions which audit a government's use of public funds. They are a critical link in a country's accountability chain. The Comptroller and Auditor General (CAG) of India is India's SAI. SAIs undertake financial audits of organizations' accounting procedures and financial statements, and compliance audits reviewing the legality of transactions made by the audited body.

Context - Comptroller and Auditor General (CAG) of India recently said that Supreme Audit Institutions (SAIs) must inevitably prepare themselves for auditing AI-based governance systems and look for opportunities to adopt AI into their audit techniques.

Q.32) 'Hiroshima AI Process (HAP)' was recently initiated by

- a) European Union
- b) Chip 4 Alliance
- c) Financial Action Task Force
- d) G 7

Q.32) Solution (d)

Hiroshima AI Process (HAP) is an effort by the G7 bloc to determine a way forward to regulate artificial intelligence (AI). It also encourages international organisations such as the OECD to consider the analysis of the impact of policy developments and the Global Partnership on AI (GPAI) to conduct practical projects.

Context - Hiroshima AI Process (HAP) was initiated in the annual Group of Seven (G7) Summit the G7 Hiroshima Leaders' Communiqué

Q.33) Consider the following statements with respect to 'United Nations Office on Drugs and Crime (UNODC)'

1. It is a member of the United Nations Sustainable Development Group
2. It works directly with Governments and non-governmental organizations
3. UNODC relies on UN General Assembly for its funds
4. United Nations Convention against Transnational Organized Crime comes under the operational work of UNODC

How many of the statement(s) given above are correct

- a) Only two
- b) Only three
- c) All four
- d) None

Q.33) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3	Statement 4
Correct	Correct	Incorrect	Correct
UNODC is a United Nations office that was established in 1997 as the Office for Drug Control and Crime Prevention by combining	By working directly with Governments and non-governmental	UNODC relies on voluntary contributions, mainly from	The United Nations Convention against Transnational Organized Crime, adopted by

the United Nations International Drug Control Program (UNDCP) and the Crime Prevention and Criminal Justice Division in the United Nations Office at Vienna, adopting the current name in 2002. The agency is a member of the United Nations Sustainable Development Group.	organizations, UNODC field staff develop and implement drug control and crime prevention programmes tailored to countries' particular needs.	governments, to carry out the majority of our work.	General Assembly resolution 55/25 of 15 November 2000, is the main international instrument in the fight against transnational organized crime. It falls under the operational work of UNODC.
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Context - Dubai Customs recently celebrated the graduation of participants from the United Nations Office on Drugs and Crime (UNODC) programme.

Q.34) Consider the following statements regarding 'Gravitational Lensing'

1. It occurs when a massive celestial body causes a sufficient curvature of spacetime for the path of light around it to be bent
2. It causes magnification, allowing us to observe objects that would otherwise be too far away and too faint to be seen

Select the correct statement(s)

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

Q.34) Solution (c)

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Gravitational Lensing occurs when a massive celestial body, such as a galaxy cluster, causes a sufficient curvature of spacetime for the path of light around it to be visibly bent, as if by a lens. The body causing the light to curve is accordingly called a gravitational lens.	An important consequence of this lensing distortion is magnification, allowing us to observe objects that would otherwise be too far away and too faint to be seen. As light travels through spacetime, the theory predicts that the path taken by the light will also be curved by an object's mass. Gravitational lensing is a dramatic and observable example of Einstein's theory in action.

Context - Astronomers have recently captured four images of the same background supernova being gravitationally lensed by the immense gravitational well of the foreground supernova.

Q.35) With reference to 'Sea Lettuce', consider the following statements

1. It is usually found growing on rocky shores of seas and oceans around the world
2. Large masses of sea lettuce are often an indicator of uncontaminated water
3. It can accumulate heavy metals and grows throughout the year

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.35) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
Sea lettuce (<i>Ulva lactuca</i>) is commonly referred to as seaweed. It is a genus of green algae usually found growing on rocky shores of seas and oceans around the world.	Large masses of sea lettuce are often an indicator of nutrient pollution in the water.	Some species of Sea lettuce also grow in brackish water rich in organic matter or sewage and can accumulate heavy metals. It needs a lot of sunlight to flourish. It is perennial, and grows all year, although the largest blooms occur during the summer.

Context - Researchers have recently discovered 20 new species of Sea lettuce along the Baltic and Scandinavian coasts.

Q.36) Consider the following statements with respect to 'Golden jackal'

1. They can stay nocturnal in places where humans inhabit
2. They are abundant in valleys and along rivers and their tributaries
3. They are classified as 'Least Concern' according to the IUCN Red List

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three

d) None

Q.36) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Golden jackals stay nocturnal if they live in an area that humans inhabit. They remain under rocks for shelter during the day and come out at night. However, in other areas, they may be partly diurnal, meaning they are active during the day.	They are quite widespread across India. Right from the Himalayan foothills, down to the Western Ghats, the Golden Jackal has a wide distribution. They are abundant in valleys and along rivers and their tributaries, canals, lakes, and seashores, but are rare in foothills and low mountains.	They are classified as 'Least Concern' according to the IUCN Red List. It falls under Schedule II of the Wildlife Protection Act, 1972.

Context – The species was in news.

Q.37) 'National Time Release Study (NTRS) 2023 report' was released recently by

- a) Ministry of Statistics and Programme Implementation
- b) NITI Aayog
- c) Central Board of Indirect Taxes
- d) Geological Survey of India

Q.37) Solution (c)

Central Board of Indirect Taxes and Customs (CBIC) along with other Members of the Board released the National Time Release Study (NTRS) 2023 report. Time Release Study (TRS) as a performance measurement tool aims to present quantitative measure of the cargo release time, defined as the time taken from arrival of the cargo at the Customs station to its out of charge for domestic clearance in case of imports and arrival of the cargo at the Customs station to the eventual departure of the carrier in case of exports.

Context - CBIC released National Time Release Study (NTRS) 2023 report

Q.38) Consider the following statements

1. Statement 1 - Government of India joined the worldwide celebrations of 15th June as Global Wind Day
2. Statement 2 - Wind energy is crucial to India's efforts to achieve its goal of having 40% of its electric power installed capacity from non-fossil fuel-based energy resources

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- Statement-I is correct but statement II is incorrect
- Statement -I is incorrect but Statement -II is correct

Q.38) Solution (c)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
The Ministry of New and Renewable Energy, Government of India joined the worldwide celebrations of 15th June as Global Wind Day, through the organization of a day-long event in New Delhi today, 15th June, 2023. Held with an intent to celebrate the success so far and discuss the potential ways forward for accelerating wind energy adoption in India, the event had the central theme of “Pawan – Urja: Powering the Future of India”. The celebration featured in-depth discussions on Wind Energy Progress in India, Offshore Wind development, Strengthening of wind energy manufacturing ecosystem and Green Finance for Wind Energy.	India has made great strides in the generation of wind energy over the years, and it now ranks fourth in wind power capacity in the world. Wind energy is crucial to India's efforts to achieve its goal of having 50% of its electric power installed capacity from non-fossil fuel-based energy resources by 2030 and to achieve Net Zero by 2070. India has significant potential for both onshore and offshore wind energy production. With the continuous efforts from the government, the country has developed around 15 GW of domestic wind manufacturing capacity, making it Aatma Nirbhar.

Context - Rajasthan, Gujarat and Tamil Nadu emerge Top Achievers in Wind Energy Adoption

Q.39) With reference to ‘Open Market Sale Scheme (OMSS)’, consider the following statements

- Food Corporation of India (FCI) sells surplus stocks of wheat and rice at highest bids through e-auction
- The FCI conducts a monthly auction to conduct this scheme in the open market using the platform of commodity exchange NCDEX
- Only State Governments are also allowed to participate in the e-auction

How many of the statement(s) given above are correct

- Only one

- b) Only two
- c) All three
- d) None

Q.39) Solution (d)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Incorrect
Under OMSS, the Food Corporation of India (FCI) sells surplus stocks of wheat and rice at pre-determined prices through e-auction in the open market.	The FCI conducts a weekly auction to conduct this scheme in the open market using the platform of commodity exchange NCDEX(National Commodity and Derivatives Exchange Limited).	The State Governments/ Union Territory Administrations are also allowed to participate in the e-auction, if they require wheat and rice outside the Targeted Public Distribution Scheme (TPDS) and Other Welfare Schemes (OWS).

Context - The Central Government recently discontinued the sale of rice and wheat from the central pool under the Open Market Sale Scheme (OMSS) to State governments.

Q.40) Consider the following statements with respect to 'India Infrastructure Project Development Funding Scheme (IIPDF)'

1. It is a Central Sector Scheme which will aid the development of quality PPP projects in the Central and State Governments
2. The corpus of the IIPDF shall comprise of initial budgetary outlay of Rs. 1000 Crore by the Ministry of Finance

Select the correct statement(s)

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

Q.40) Solution (a)**Statement Analysis:**

Statement 1	Statement 2
Correct	Incorrect
It is a Central Sector Scheme which will aid the development of quality PPP projects by providing necessary funding support to the project sponsoring authorities, both in the Central and State Governments.	The corpus of the IIPDF shall comprise of initial budgetary outlay of Rs. 100 Crore by the Ministry of Finance. Funding under IIPDF Scheme is in addition to the already operational Scheme for Financial Support to PPPs in Infrastructure (VGF Scheme).

Context - The Infrastructure Finance Secretariat has launched the IIPDF Portal for submitting applications for consideration under IIPDF Scheme.

Q.41) Consider the following statements with respect to 'International Energy Agency'

1. It is an autonomous inter-governmental organisation within the United Nations framework
2. Crude oil and/or product reserves equivalent to 6 months of the previous year's net imports is one of the criteria for membership
3. India presently has the status of an observer at the IEA

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.41) Solution (d)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Incorrect
International Energy Agency is an autonomous inter-governmental organisation within the OECD framework. It works with governments and industry to shape a secure and sustainable energy future for all. It was founded in 1974 to ensure the security of oil supplies.	Crude oil and/or product reserves are equivalent to 90 days of the previous year's net imports, to which the government has immediate access (even if it does not own them directly) and could be used to address disruptions to global oil supply. A demand restraint programme to reduce national oil consumption by up to 10%. Legislation and organisation to operate the Co-ordinated Emergency Response Measures (CERM) on a national basis are some of the criteria for membership	India joined this organization in 2017 as an Associate member.

Context - The executive director of the International Energy Agency (IEA), said it would review all its membership conditions for India's inclusion in the world's premier energy monitoring organization.

Q.42) With reference to 'VAIBHAV fellowship Programme', consider the following statements

1. The fellowship would be awarded to outstanding scientists/technologists of Indian Origin
2. It is implemented by the Ministry of Education

Select the correct statement(s)

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

Q.42) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
VAIBHAV fellowship Programme would be awarded to outstanding scientists/technologists of Indian origin (NRI/OCI/PIO) who are engaged in research activities in their respective countries. The VAIBHAV Fellow would identify an Indian Institution for collaboration and may spend up to two months in a year for a maximum of 3 years.	It is implemented by the Department of Science and Technology (DST), Ministry of Science and Technology.

Context - The Government of India has launched a new fellowship programme to connect the Indian Science, Technology, Engineering, Mathematics and Medicine (STEMM) diaspora with Indian academic and R&D institutions.

Q.43) 'Kanika Range in Odisha' which was in news is known for

- a) Discovery of Rare Earth minerals
- b) Neolithic site
- c) Crater formations
- d) Natural arch

Q.43) Solution (d)

The Sundargarh natural arch, present in the ferruginous sandstone of the Upper Kamthi formation, dates back to about 184 to 160 million years in the lower to middle Jurassic age. If it is done, it will be the biggest natural arch of the country to have the Geo Heritage tag. The state unit of the Geological Survey of India (GSI) has proposed to declare the 'Natural Arch' in the Kanika range of Sundargarh forest division, a Geo Heritage Site.

Context - A team of the Geological Survey of India recently discovered India's biggest natural arch during their survey of coal in Kenduadihi block in Odisha's Sundargarh district.

Q.44) Consider the following statements about 'Geminid meteor shower'

1. It peaks during Aphelion each year and is considered to be the most reliable annual meteor showers
2. The Geminid stream appears to originate from an asteroid known as 3200 Phaethon

Select the correct statement(s)

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

Q.44) Solution (b)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Correct
Geminid meteor shower peaks during mid-December each year and is considered to be one of the best and most reliable annual meteor showers. The 3200 Phaethon It is classified as an asteroid- the first to be discovered via satellite.	Unlike most meteor showers that originate from comets, the Geminid stream appears to originate from an asteroid known as 3200 Phaethon.

Context - NASA's Parker Solar Probe mission has shed new light on the origin of the intense Geminid meteor shower.

Q.45) Consider the following statements

1. Landfall refers to a situation where the core of high winds (or eyewall) comes onshore but the centre of the storm may remain offshore
2. A tropical cyclone is said to have made a landfall when the center of the storm moves over the coast according to INCOIS
3. Landfalls can last for a few hours, with their exact duration depending on the speed of the wind

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.45) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Correct
A landfall should not be confused with a 'direct hit', which refers to a situation where the core of high winds (or eyewall) comes onshore but the centre of the storm may stay remain offshore.	As per the IMD, a tropical cyclone is said to have made a landfall when the center of the storm – or its eye – moves over the coast.	Landfalls can last for a few hours, with their exact duration depending on the speed of the winds and the size of the storm system. e.g., Cyclone Biparjoy's land process is expected to last around five to six hours, with the cyclone almost completely dissipating over approximately the next 24 hours.

Context - On June 15, the landfall process of Cyclone Biparjoy started near Jakhau port in the state's Kutch district and continued till midnight.

Q.46) Consider the following statements about 'Kedarnath Temple'

1. It is the only temple in North India to be built in Vesara style
2. It is one of the four sites of the Char Dham Pilgrimage circuit
3. It is located close to the source of Mandakini river in the Garhwal Himalayan range

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.46) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Correct
Standing majestically tall at an altitude of 3,969 metres above sea level, the Kedarnath temple has been built in the Rekha-Sikhara	Kedarnath forms one of the four sites of the Chota Char Dham Pilgrimage circuit, and is one of the 12 Jyotirlingas of Lord Shiva in India. It is said that the Pandavas constructed the Kedarnath Temple which	Kedarnath Temple is a Hindu temple dedicated to Shiva. It is located at a height of 3,584 meters on the Garhwal Himalayan range near the Mandakini river, in the

style with three different horizontal divisions.	was later reconstructed by Adi Shankaracharya in the 8th century A.D.	Rudraprayag District of Uttarakhand.
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Context - The Uttarakhand government recently decided to set up a high-level committee to probe allegations of a ₹ 1.25 billion scam in gold plating the sanctum sanctorum of the Kedarnath temple.

Q.47) With reference to 'Air Independent Propulsion (AIP) System' used in submarines, consider the following statements

Statement 1 - It allows the submarines to stay in water by eliminating the need to come to the surface of the water to charge their batteries

Statement 2 - AIP systems generate electricity, which in turn drives an electric motor for propulsion or recharges the boat's batteries

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- Statement-I is correct but statement II is incorrect
- Statement -I is incorrect but Statement -II is correct

Q.47) Solution (d)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Correct
AIP system allows the submarines to stay for longer hours in water. The submarines need to come to the surface of the water to charge their batteries. This is reduced by AIP System. It decreases the noise levels made by the submarines. This makes it hard to detect the submarines.	AIP is mostly implemented as an auxiliary source, with the traditional diesel engine handling surface propulsion. Most of these systems generate electricity, which in turn drives an electric motor for propulsion or recharges the boat's batteries. AIP allows longer submergence than a conventionally propelled submarine.

Context - Larsen & Toubro and the Defence Research and Development Organisation (DRDO) signed a contract for the realisation of two Air Independent Propulsion (AIP) System Modules for Kalvari Class of submarines of the Indian Navy.

Q.48) Consider the following statements about 'Cumin (Jeera)'

1. It is a Rabi crop cultivated mainly in Gujarat and Rajasthan
2. India is the largest producer of Cumin in the world
3. It is an aromatic seed that is believed to be native to the South American region

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.48) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
Jeera is a Rabi crop and is cultivated mainly in Gujarat and Rajasthan. It is a highly weather-sensitive crop. It requires a moderately cool and dry climate without any humidity.	India accounts for some 70% of the world's production of this seed spice. Other countries such as Syria, Turkey, UAE and Iran make up the balance 30%.	Jeera is an aromatic seed that adds an extra punch of taste to Indian dishes. It is believed that Jeera is native to the Mediterranean region, and it was well-known in Ancient Egypt, Greece, and Rome.

Context – It was in news due to sudden surge in prices.

Q.49) 'Debrigarh Wildlife Sanctuary' seen in news recently is located in

- a) West Bengal
- b) Jharkhand
- c) Assam
- d) Odisha

Q.49) Solution (d)

The Debrigarh wildlife sanctuary is located in the Sambalpur district in the Indian state of Odisha, covering a total area of 346.91 km². It is situated near the city of Sambalpur's Hirakud Dam. It finds a special mention because of noted freedom fighter Veer Surendra Sai. During his rebellion against the British Veer Surendra Saimade his base at 'Barapathara" located within the sanctuary.

Context – The wildlife sanctuary was in news.

Q.50) Consider the following statements about 'cultured meat'

1. It is meat produced by culturing animal cells in vivo
2. Singapore is the only other country where cultured meat is approved and commercialized.

Select the **INCORRECT** statement(s)

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

Q.50) Solution (c)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Incorrect
Cultured meat (also known by other names) is meat produced by culturing animal cells in vitro. It is a form of cellular agriculture. Cultured meat is produced using tissue engineering techniques pioneered in regenerative medicine.	With the approval by the USDA in June, the US joins Singapore as the only other country where cultured meat is approved and commercialized.

Context - Two U.S. companies have received the U.S. Food and Drug Administration (FDA) approval to make and sell their cell-cultivated chicken.

Q.51) With reference to 'Order of the Nile Award', consider the following statements

1. It is Egypt's highest state honour conferred upon Heads of state or Crown Princes only
2. Narendra Modi is the second Indian Prime Minister to receive this award

Select the **correct** statement(s)

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

Q.51) Solution (d)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Incorrect
Order of the Nile Award is Egypt's highest state honour. Instituted in 1915, the 'Order of the Nile' is conferred upon Heads of state, Crown Princes, and Vice-Presidents who offer Egypt or humanity invaluable services.	PM Modi is the first Indian to have received this honour in Egypt. He is also the first Prime Minister to have received this award.

Context - The Egyptian President conferred the country's highest state honour "Order of the Nile" award to the Prime Minister of India

Q.52) Consider the following statements with respect to 'Liberalised Remittances Scheme (LRS)'

1. The scheme allows remittances up to USD \$250,000 per financial year on current or capital account transactions
2. Only individual Indian residents, HUF, Corporates are permitted to remit funds under LRS
3. There is no tax on any profit made on foreign investments made under LRS

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.52) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Incorrect
LRS allows Indian residents to freely remit up to USD \$250,000 per financial year for current or capital account transactions or a combination of both. Any remittance exceeding this limit requires prior permission from the RBI.	Only individual Indian residents, including minors, are permitted to remit funds under LRS. Corporates, partnership firms, HUF, trusts, etc., are excluded from its ambit.	If any profit is made on foreign investments made under LRS, it is taxable in India based on how long the investment was held.

Context - Twenty per cent tax on Liberalised Remittances Scheme (LRS) of the Reserve Bank of India is set to kick off soon.

Q.53) 'Hasarius Mumbai' which was discovered recently are a species of

- a) Dragon flies
- b) Spiders
- c) Crabs
- d) Frogs

Q.53) Solution (b)

Hasarius Mumbai is a newly discovered species of jumping spider. These are spiders who, instead of trapping their prey in a web, stalk and hunt them by pouncing. It has multiple eyes that give a 360-degree view of its surroundings and a bulbous body covered in hair. The word 'Hasarius' refers to a genus that ranks the species — of 'jumping spiders' in the 'salticidae' family. In India, there are only two other Hasarius species which have been documented, namely H. Adansoni, which is found across the country, including in urban areas, and kjellerupi, which was documented from the Nicobar Islands.

Context - A new species of jumping spider named 'Hasarius Mumbai' was recently discovered from the rocks close to the streams in Goregaon East.

Q.54) With reference to 'Pelagic birds', consider the following statements

1. These are seabirds that live on open seas and oceans rather than inland
2. They have exceptionally long and thin wings that allow them to fly effortlessly for long periods
3. Almost all seabirds live in colonies, migrate annually, and mate for life

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.54) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Pelagic Birds are seabirds that live on open seas and oceans rather than inland or around more restricted waters such as lakes and	They have exceptionally long and thin wings that allow them to fly effortlessly for long periods without rest. Many pelagic birds have special	Almost all seabirds live in colonies, migrate annually, and mate for life. In general, seabirds live

rivers. They can be found thousands of miles offshore but can get blown onto land during high winds and storms.	salt glands. This allows them to drink seawater and discard extra salt accidentally ingested by their oceanic prey.	longer than other wild birds; most have an average lifespan of 50 years
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Context - Birdwatchers and enthusiasts of Gujarat have recently reported sightings of Pelagic birds in places not typically associated with their presence.

Q.55) Consider the following statements with respect to ‘Light Detection and Ranging’

Statement 1 - LiDAR systems allow scientists and mapping professionals to examine both natural and manmade environments with accuracy, precision, and flexibility.

Statement 2 – LiDAR is a remote sensing method that uses light in the form of Infrared rays to measure ranges (variable distances) to the Earth

Which one of the following is correct in respect of the above statements?

- a) Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I
- b) Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- c) Statement-I is correct but statement II is incorrect
- d) Statement -I is incorrect but Statement -II is correct

Q.55) Solution (c)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
Lidar systems allow scientists and mapping professionals to examine both natural and manmade environments with accuracy, precision, and flexibility. It is used to produce more accurate shoreline maps, make digital elevation models for use in geographic information systems, assist in emergency response operations, and in many other applications.	LiDAR, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system — generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.

Context – The technology was in news

Q.56) 'World Competitiveness Index' is published by

- World Trade Organization
- International Institute for Management Development (IMD)
- World Economic Forum
- International Monetary Fund

Q.56) Solution (b)

World Competitiveness Index is a comprehensive annual report and worldwide reference point on the competitiveness of countries. It analyses and ranks countries according to how they manage their competencies to achieve long-term value creation. It is based on 336 competitiveness criteria and four factors, namely Economic performance, Government efficiency, Business efficiency, and Infrastructure. Denmark, Ireland, and Switzerland have been named the top three among 64 economies measured for their global competitiveness. India fell three rungs to finish 40th but is still in a better position than it was between 2019-2021 when it was placed 43rd three years in a row.

Context - The International Institute for Management Development (IMD) published the World Competitiveness Index recently

Q.57) With reference to 'United Nations Office for Outer Space Affairs (UNOOSA)', consider the following statements

- It implements the United Nations Programme on Space Applications (PSA)
- It maintains the Register of Objects Launched into Outer Space on behalf of the UN Security Council
- It works to improve the use of space science and technology for the economic and social development of all countries

How many of the statement(s) given above are correct

- Only one
- Only two
- All three
- None

Q.57) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
United Nations Office for Outer Space Affairs (UNOOSA) is the UN	On behalf of the UN Secretary-General,	It works to improve the use of space science and technology for the

office responsible for promoting international cooperation in the peaceful uses of outer space. UNOOSA implements the United Nations Programme on Space Applications (PSA). Under the Programme, UNOOSA conducts training courses, workshops, seminars and other activities on space applications.	UNOOSA maintains the Register of Objects Launched into Outer Space and disseminates via its website that information recorded in the Register.	economic and social development of all countries, particularly developing countries. It also prepares and distributes documents, reports, studies and publications on various aspects of space science and technology applications and international space law.
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Context - The UN Secretary-General recently appointed Indian-origin satellite industry expert Aarti Holla-Maini as Director of the United Nations Office for Outer Space Affairs (UNOOSA).

Q.58) Consider the following statements about 'Digital Publisher Content Grievances Council (DPCGC)'

1. It is an independent self-regulatory body for Online Curated Content (OCC) providers
2. It has been registered by the Ministry of Electronics and Information Technology under IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021

Select the correct statement(s)

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

Q.58) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
Digital Publisher Content Grievances Council (DPCGC) is an independent self-regulatory body for Online Curated Content (OCC) providers. It was set up under the aegis of Internet and Mobile Association of India (IAMAI).	DPCGC has been recognised and registered by the Ministry of Information & Broadcasting as Level II Self-Regulatory Body for publishers of OCC providers, under Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. The DPCGC has an Online Curated Content Publishers (OCCP) Council composed of publishers of OCC as members and an independent Grievance Redressal Board [GRB] consisting of a chairperson and six members.

Context - The Digital Publisher Content Grievances Council (DPCGC) recently recommended punitive action on an OTT platform, invoking the Information Technology Rules (2021).

Q.59) Consider the following

1. Door-to-door waste collection
2. Waste to Wonder Parks
3. Divyang-friendly toilets
4. Improved plastic waste management
5. Red spots

On which of the indicators mentioned above, 'Swachh Survekshan 2023' is based

- a) Only two
- b) Only three
- c) Only four
- d) All five

Q.59) Solution (d)

Swachh Survekshan 2023 indicators focus on parameters pertaining to segregated door-to-door waste collection, zero waste events, Divyang-friendly toilets, improved plastic waste management and cleaning backlanes, wherein the marks have been increased this year. Laying emphasis on transforming 'manholes' to 'machine holes', priority has been given to Safaimitra Suraksha. 2x marks have been increased under this component. The new indicator of Waste to Wonder Parks has been introduced with 2% weightage. Swachh TULIP, primarily for more than 1 lakh population cities enters SS 2023 as a new indicator. Besides this, Red Spots (spitting in commercial/ residential area) has also been added as a new indicator under cleaning of public areas. Special emphasis is being laid on Promotion of RRR – Functionality of RRR Centres. 40% weightage has been indicated for detailed technical assessment of all waste treatment facilities in cities this year.

Context - 8th edition of World's Largest Urban Cleanliness Survey began recently

Q.60) Consider the following statements about "Special Assistance to States for Capital Investment 2023-24"

1. Special assistance is being provided to the State Governments in the form of 50-year interest free loan under this scheme
2. A part of the allocation amongst States is in proportion to their share of central taxes & duties as per the award of the 15th Finance Commission
3. There is a provision in the scheme which incentivizes States to scrap State Government vehicles and ambulances

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.60) Solution (c)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Under the scheme, special assistance is being provided to the State Governments in the form of 50-year interest free loan up to an overall sum of Rs. 1.3 lakh crore during the FY 2023-24.	Part-I of the scheme being the largest with allocation of Rs. 1 lakh crore and has been allocated amongst States in proportion to their share of central taxes & duties as per the award of the 15th Finance Commission.	For the Part-II, Rs. 3,000 crores have been set aside for providing incentives to States for scrapping of State Government vehicles and ambulances, etc.

Context - The Department of Expenditure under the Finance Ministry has approved capital investment proposals of Rs 56,415 crore for 16 states in the current financial year 2023-24 (FY 23-24).

Q.61) Consider the following statements with respect to 'PM-PRANAM'

1. The scheme aims to incentivise states to promote alternative fertilisers and reduce the use of chemical fertilisers
2. The scheme will not have a separate budget
3. All the subsidy savings will be passed on to the state that saves the money as a grant

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.61) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
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Correct	Correct	Incorrect
PM-PRANAM stands for PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth. The scheme aims to reduce the use of chemical fertilisers by incentivising state.	The scheme will not have a separate budget. It will be financed by the savings of existing fertiliser subsidy under schemes run by the Department of fertilisers.	50% of subsidy savings will be passed on to the state that saves the money as a grant. 70% of this grant can be used to create assets related to the technological adoption of alternate fertilisers and alternate fertiliser production units at the village block, and district levels. The remaining 30% grant money can be used to reward and encourage farmers, panchayats, and other stakeholders involved in fertiliser reduction and awareness generation.

Context - The Centre has approved a new scheme PM-PRANAM to incentivise states to promote alternative fertilisers and reduce the use of chemical fertilisers.

Q.62) 'UTPRERAK', a centre of excellence which was launched recently is related to

- a) Vaccine research
- b) Artificial Intelligence
- c) Energy efficiency
- d) Food engineering

Q.62) Solution (c)

The Unnat Takniki Pradarshan Kendra (UTPRERAK) is the Centre of Excellence to Accelerate Adoption of Energy Efficient Technologies and seeks to play a catalytic role in improving the energy efficiency of the Indian industry. It is also named as Advanced Industrial Technology Demonstration Centre (AITDC). It has been set up by the Bureau of Energy Efficiency (BEE), Ministry of Power.

Context - The Union Minister of State for Power inaugurated UTPRERAK, a dedicated Centre of Excellence, to accelerate industry adoption of clean technologies in New Delhi

Q.63) With reference to 'Solar Mean Magnetic Field (SMMF)', consider the following statements

1. It refers to the average strength and direction of the magnetic field on the surface of the Sun
2. The value of chromospheric SMMF is lower than the photospheric SMMF,

Select the INCORRECT statement(s)

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

Q.63) Solution (d)**Statement Analysis:**

Statement 1	Statement 2
Correct	Correct
Solar Mean Magnetic Field is the mean value of the line-of-sight (LOS) component of the solar vector magnetic field averaged over the visible hemisphere as well as its relationship with Interplanetary Magnetic Field (IMF). The Solar Mean Magnetic Field (SMMF) refers to the average strength and direction of the magnetic field on the surface of the Sun.	The value of chromospheric SMMF is lower than the photospheric SMMF, thereby suggesting that the primordial magnetic field inside the sun could be a source of the SMMF. Scientists, in their quest to understand if and how the SMMF at chromospheric heights is related to the SMMF at photospheric heights, have found a very good similarity between the two.

Context - Scientists from the Indian Institute of Astrophysics (IIA) through their latest study have given a clearer picture of how the sun's magnetic field influences the interplanetary magnetic space.

Q.64) Consider the following statements with respect to 'Employees' Provident Fund Organisation (EPFO)'

1. It is an executive body working under the Ministry of Labour and Employment
2. The administrative board consists of representatives from Government, Employers, and Employees

Select the correct statement(s)

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

Q.64) Solution (b)**Statement Analysis:**

Statement 1	Statement 2
Incorrect	Correct
Employees' Provident Fund Organisation (EPFO) is a statutory body that came into existence under the Employees' Provident Fund and Miscellaneous Provisions Act, of 1952. The EPFO is under the	The Act and Schemes framed there under are administered by a tripartite Board known as the Central Board of Trustees, Employees' Provident Fund, consisting of representatives of

administrative control of the Ministry of Labour and Employment, Government of India.

Government (Both Central and State), Employers, and Employees.

Context - (EPFO) has extended the deadline for members and pensioners to apply for higher Provident Fund (PF) pensions till July 11.

Q.65) Consider the following statements

1. India has the second-largest road network in the world after China
2. The quantitative density of India's road network is substantially higher than the United States and China
3. State Highways constitute the highest proportion of roads in terms of length

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.65) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Incorrect
India has a network of over 6,215,797 kilometres (3,862,317 mi) of roads as of 1 December 2021. This is the second-largest road network in the world, after the United States.	At (1.94 km, 1.21 mi) of roads per square kilometre of land, the quantitative density of India's road network is equal to that of Hong Kong, and substantially higher than the United States (0.71 km, 0.44 mi), China (0.54 km, 0.34 mi), Brazil (0.23 km, 0.14 mi) and Russia (0.09 km, 0.056 mi)	According to Ministry of Road Transport and Highways, as of March 2021, India had about 151,019 kilometres (93,839 mi) of national highways and expressways, plus another 186,528 kilometres (115,903 mi) of state highways. However, rural roads and highways constitute 4,535,511 kms or 72.97% of the total length of roads in India.

Context - Union Road Transport and Highways Minister said total length of the National Highways in the country increased by about 59% in the last nine years.

Q.66) Consider the following statements about 'Giant Metrewave Radio Telescope (GMRT)'

1. It is a high-frequency radio telescope that helps investigate various radio astrophysical problems

2. It is presently the world's smallest radio telescope operating at meter wavelength

Select the correct statement(s)

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

Q.66) Solution (d)

Statement Analysis:

Statement 1	Statement 2
Incorrect	Incorrect
Giant Metrewave Radio Telescope (GMRT) is a low-frequency radio telescope that helps investigate various radio astrophysical problems ranging from nearby solar systems to the edge of the observable universe. Located at Khodad, 80 km north of Pune, the telescope is operated by the National Centre of Radio Astrophysics (NCRA).	GMRT is presently the world's largest radio telescope operating at meter wavelength. It consists of 30 fully-steerable dish type antennas of 45-meter diameter each, spread over a 25-km region. Two of its most important astrophysical objectives are: to detect the highly redshifted spectral line of neutral Hydrogen expected from proto-clusters or protogalaxies before they condensed to form galaxies in the early phase of the Universe; to search for and study rapidly-rotating Pulsars in our galaxy

Context - India's Giant Metrewave Radio Telescope (GMRT) played a role in confirming the presence of gravitational waves using pulsar observations.

Q.67) With reference to 'Zero FIR', consider the following statements

- 1. It refers to an FIR that is registered irrespective of the area where the offence is committed
- 2. It was introduced on the recommendation of the Justice Malimath Committee
- 3. It finds place in the Indian Penal Code

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.67) Solution (a)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Incorrect
Zero FIR refers to an FIR that is registered irrespective of the area where the offence is committed. The police, in such a case, can no longer claim that they have no jurisdiction. Such an FIR is then later transferred to the police station that has the actual jurisdiction so that the investigation can begin.	It was introduced on the recommendation of the Justice Verma Committee formed at the backdrop of the brutal Nirbhaya gang rape in Delhi in 2012. This puts a legal obligation on the police to begin an investigation and take quick action without the excuse of the absence of jurisdiction.	Section 154 of Criminal code Procedure Act 1973, states about the FIR (first information report). ZERO FIR also fall under section 154 of crpc.

Context - Recently, in Manipur violence incidents, nearly 30% of First Information Reports (FIRs) were 'zero FIRs', filed suo-motu by the police.

Q.68) Consider the following statements about 'National Research Foundation (NRF)'

1. NRF will seed, grow and promote R&D throughout India's universities, research institutions and R&D laboratories
2. NRF's functioning will be governed by an Executive Council chaired by the Principal Scientific Adviser
3. It will be established as per the recommendations of the National Education Policy (NEP), at a total estimated cost of ₹5,00,000 crore

How many of the statement(s) given above are correct

- a) Only one
- b) Only two
- c) All three
- d) None

Q.68) Solution (b)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
NRF Bill 2023 will pave the way to establish NRF that will seed, grow and promote R&D and foster a culture of	NRF's functioning will be governed by an Executive Council chaired by the Principal Scientific Adviser to the Government of India. The DST would be an	As per the recommendations of the National Education Policy (NEP), NRF will be

research and innovation throughout India's universities, colleges, research institutions and R&D laboratories. The proposed Bill also repeals the Science and Engineering Research Board (SERB) established by Parliament in 2008 and subsumes it into the NRF.	"administrative" department of NRF that would be governed by a Governing Board. The Prime Minister will be the ex-officio President of the Board and the Union Minister of Science & Technology and Union Minister of Education will be the ex-officio Vice-Presidents. The Governing Board will also consist of eminent researchers and professionals across disciplines.	established at a total estimated cost of ₹50,000 crore from 2023-28. The government will contribute ₹10,000 crore over five years and close to ₹36,000 crore is expected to come from the private sector (as investments into research).
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Context - The Union Cabinet approved the National Research Foundation (NRF) Bill 2023, which will establish NRF as an apex body

Q.69) 'Children and Armed Conflict report' is published by

- UNICEF
- International Red Cross
- UN Secretary General
- Office of the High Commissioner for Human Rights

Q.69) Solution (c)

Children and Armed Conflict Report is the annual report presents a comprehensive picture of child soldiers, highlights the disproportionate impact of war on children and identifies them as the primary victims of armed conflict. The Special Representative of the Secretary-General for Children and Armed Conflict serves as the leading UN advocate for the protection and well-being of children affected by armed conflict. It is the annual report of UN Secretary-General on Children and Armed Conflict.

Context - UN Secretary-General Antonio Guterres has removed India from his annual report on the impact of armed conflict on children

Q.70) With reference to 'Critical minerals', consider the following statements

Statement 1 – They are metallic or non-metallic element that are essential for the functioning of our modern technologies

Statement 2 - They are used to manufacture advanced technologies and are also used in low-emission technologies

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement II is the correct explanation for Statement-I

- b) Both Statement-I and Statement-II are correct and Statement II is not the correct explanation for Statement-I
- c) Statement-I is correct but statement II is incorrect
- d) Statement -I is incorrect but Statement -II is correct

Q.70) Solution (a)**Statement Analysis:**

Statement 1	Statement 2
Correct	Correct
Critical Minerals is a metallic or non-metallic element that has two characteristics. It is essential for the functioning of our modern technologies, economies or national security and	They are used to manufacture advanced technologies, including mobile phones, computers, fibre-optic cables, semiconductors, banknotes, and defence, aerospace and medical applications. Many are used in low-emission technologies, such as electric vehicles, wind turbines, solar panels, and rechargeable batteries. Some are also crucial for common products, such as stainless steel and electronics.

Context - The Central Government recently identified 30 minerals as critical to India, including lithium and vanadium, which are largely used in the manufacturing of batteries.

Q.71) Consider the following statements about Centralized Laboratory Network (CLN)

1. It is a part of the Coalition for Epidemic Preparedness Innovations (CEPI).
2. Recently, Indian Council of Medical Research-National Institute of Virology joined the CLN.

Choose the incorrect statements:

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

Q.71) Solution (d)**Statement Analysis**

Statement 1	Statement 2
Correct	Correct
Centralized Laboratory Network <ul style="list-style-type: none"> • It works to test vaccines which can be used during pandemic, epidemic disease outbreak. • It currently has 15 partner facilities in 13 countries. 	New members <ul style="list-style-type: none"> • Indian Council of Medical Research-National Institute of Virology (ICMR-NIV). • Senegal, • Kenya,

- | | |
|---|--|
| <ul style="list-style-type: none"> It is a part of the Coalition for Epidemic Preparedness Innovations (CEPI). This Network is the largest global group which has standardized methods and materials for testing. | <ul style="list-style-type: none"> South Africa, Uganda. |
|---|--|

Context: India has joined the Centralized Laboratory Network (CLN).

Q.72) Consider the following statements about Combined Maritime Forces (CMF)

- It is a multi-national naval partnership, which exists to promote security, stability and prosperity across international waters.
- Combined Maritime Forces (CMF) is commanded by a U.S. Navy Vice Admiral.
- Recently, India joined as a member to this organization.

How many of the statements given above are correct?

- Only One
- Only Two
- All Three
- None

Q.72) Solution (b)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
<ul style="list-style-type: none"> It is a multi-national naval partnership, which exists to promote security, stability and prosperity across international waters, which encompass some of the world's most important shipping lanes. Aim - It aims to uphold the Rules-Based International Order (R BIO). Its main focus areas are defeating terrorism, preventing piracy, encouraging regional cooperation, and promoting a safe maritime environment. 	<ul style="list-style-type: none"> Comprised of 3 task forces: CTF 150 (maritime security and counter-terrorism), CTF 151 (counter piracy) and CTF 152 (Arabian Gulf security and cooperation). It has 34 member nations. Commanded by a U.S. Navy Vice Admiral, who also serves as Commander U.S. Naval Forces Central Command and U.S. 5th Fleet. All three commands are co-located at U.S. Naval Support Activity Bahrain. Deputy Commander is a UK Royal Navy Commodore. Participation is purely voluntary. No nation is asked to carry out any duty that it is unwilling to conduct. 	<ul style="list-style-type: none"> India is not a member of CMF. In 2022, at the India-US 2+2, India announced it would join the Combined Maritime Forces (CMF) as an Associate Partner.

Context: The UAE withdrew its participation in the Combined Maritime Forces.

Q.73) Consider the following statements about Acinetobacter Baumannii

- It is a gram-negative bacillus that is aerobic, pleomorphic and non-motile.
- It is an opportunistic viral pathogen primarily associated with hospital-acquired infections.

Choose the correct statements:

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

Q.73) Solution (a)

Statement Analysis

Statement 1	Statement 2
Correct	Incorrect
<p>Acinetobacter Baumannii</p> <ul style="list-style-type: none"> • It is a Gram-negative bacillus that is aerobic, pleomorphic (Occurring in various distinct forms) and non-motile (not capable of movement). 	<ul style="list-style-type: none"> • It is an opportunistic bacterial pathogen primarily associated with hospital-acquired infections. • It occurs particularly those who have experienced a prolonged (> 90 days) hospital stay. <p>Impacts</p> <ul style="list-style-type: none"> • Commonly associated with aquatic environments. • It has been shown to colonize the skin as well as being isolated in high numbers from the respiratory and oropharynx secretions of infected individuals. • In recent years, it has been designated as a “red alert” human pathogen, generating alarm among the medical fraternity, arising largely from its extensive antibiotic resistance spectrum.

Context: Researchers have used machine-learning to identify a potential new antibiotic against of disease-causing bacteria, A. Baumannii.

Q.74) Consider the following statements about Small Finance Banks (SFBs)

1. They are required to maintain a minimum Capital to Risk-Weighted Assets Ratio (CRAR) of 15%.
2. They are required to extend 75% of their Adjusted Net Bank Credit to Priority Sector Lending.
3. SFBs are required to open at least 25% of their total branches in unbanked rural areas.

How many of the statements given above are correct?

- a) Only One
- b) Only Two
- c) All Three
- d) None

Q.74) Solution (c)

Statement Analysis

Option c**Correct**

- SFBs are specialized banks that are licensed by RBI to provide financial services and products to low-income individuals and underserved communities, including microfinance and micro-enterprise services, as well as other basic banking services.
- SFBs are registered as public limited companies under the Companies Act, 2013 and governed by Banking Regulations Act, 1949; RBI Act, 1934 and other relevant Statutes and Directives from time to time.
- The guidelines for SFBs were introduced in 2014 by RBI. RBI Guidelines on SFBs in India are:
- SFBs are granted the scheduled bank status after being operational and are deemed suitable under section 42 of the RBI Act, 1934.
- SFBs are required to primarily focus on providing access to financial services to the unbanked and underbanked segments of the population.
- They are required to maintain a minimum Capital to Risk-Weighted Assets Ratio (CRAR) of 15%.
- They are required to extend 75% of their Adjusted Net Bank Credit to Priority Sector Lending.
- SFBs are required to open at least 25% of their total branches in unbanked rural areas.
- The minimum paid-up voting equity capital for small finance banks shall be Rs.200 crore.
- SFBs are required to maintain at least 50% of their loan portfolio as microfinance and advances of up to Rs. 25,00,000.
- SFBs are required to comply with various prudential norms and regulations related to income recognition, asset classification, and provisioning.
- SFBs are encouraged to adopt technology to improve their operational efficiency and reach the target segments.

Context: The Reserve Bank of India (RBI)-appointed director, recently resigned from the board of Ujjivan Small Finance Bank (SFB).

Q.75) Guarani tribe, recently seen in news belong to which of the following country?

- Brazil
- Malaysia
- New Zealand
- Australia

Q.75) Solution (a)

Option a

Key facts about the Guarani tribe:

- The Guarani were one of the first peoples contacted after Europeans arrived in South America around 500 years ago.
- In Brazil, there are today around 51,000 Guarani living in seven states, making them the country's most numerous tribes. Many others live in neighbouring Paraguay, Bolivia, and Argentina.
- These people in Brazil are divided into three groups: Kaiowá, Nandeva and M'byá, of which the largest is the Kaiowá which means 'forest people'.
- They are deeply spiritual people.
- Most communities have a prayer house, and a religious leader, whose authority is based on prestige rather than formal power

Context: Recently, protests by Guarani tribal people have erupted across Brazil as the country's Chamber of Deputies approved a new land bill that will restrict the new recognition of ancestral land of indigenous people.

Q.76) Consider the following statements about Biochar

1. Biochar is a carbon-rich material that is made from biomass through process known as pyrolysis.
2. Biochar is black, highly porous, lightweight and fine-grained.
3. Biochar production is a carbon-negative process.

Choose the correct statements:

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

Q.76) Solution (a)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • Biochar is a carbon-rich material that is made from biomass through a thermochemical conversion process known as pyrolysis. • Pyrolysis – In this process, organic materials, such as wood chips, leaf litter or dead plants, are burned in a container with very little/no oxygen. 	<ul style="list-style-type: none"> • Physical Attribute - Biochar is black, highly porous, lightweight, fine-grained and has a large surface area. • Approximately 70% of its composition is carbon. • The remaining percentage consists of nitrogen, hydrogen and oxygen among other elements. • It is produced using a specific process to reduce contamination and safely store carbon. 	<ul style="list-style-type: none"> • Biochar production is a carbon-negative process, which means that it actually reduces CO₂ in the atmosphere. • In the process, the unstable carbon is converted into a stable form of carbon that is then stored in the biochar. • When biochar is applied to the soil, it stores the carbon in a secure place for potentially hundreds or thousands of years

Context: While the biochar industry is still in its infancy, the technology offers a novel way to remove carbon from the atmosphere.

Q.77) Consider the following statements about Protein Nano-computers

1. Protein Nano-computers respond directly to stimuli and then produce a desired action unlike Traditional synthetic biology approach rely on the expression or suppression of proteins.
2. In Protein Nano-computers, the target protein responds to light and a drug called rapamycin by adjusting its orientation, or position in space.

Choose the incorrect statements:

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

Q.77) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<p>Protein Nano-computers</p> <ul style="list-style-type: none"> • The first protein-based nano-computing agent that functions as a circuit has been created by Penn State researchers. • Traditional synthetic biology approach rely on the expression or suppression of proteins that produce a desired action within a cell. • Protein-based devices or Nano-computing agents respond directly to stimuli (inputs) and then produce a desired action (outputs). 	<ul style="list-style-type: none"> • Researchers engineered a target protein by integrating 2 sensor domains, or areas that respond to stimuli. • In this case, the target protein responds to light and a drug called rapamycin by adjusting its orientation, or position in space. • To test their design, the team introduced their engineered protein into live cells in culture. By exposing the cultured cells to the stimuli, they used equipment to measure changes in cellular orientation after cells were exposed to the sensor domains' stimuli. • Previously, their nano-computing agent required two inputs to produce one output. • Now, there are two possible outputs and the output depends on which order the inputs are received. • If rapamycin is detected first, followed by light, the cell will adopt one angle of cell orientation, but if the stimuli are received in a reverse order, then the cell adopts a different orientation angle. • This experimental proof-of-concept opens the door for the development of more complex nano-computing agents. • Theoretically, the more inputs you embed into a nano-computing agent, the more potential outcomes that could result from different combinations.

Context: What are protein nano-computers? – An article in The Hindu

Q.78) Consider the following statements about Strategic Petroleum Reserves (SPR) in India

1. Underground rock caverns are developed through excavation whereas salt caverns are developed by the process of solution mining.
2. Oil Absorbency is high in rock cavern based reserves compared to salt based cavern reserves.
3. Currently, India has 3 strategic oil storage facilities at Mangaluru, Padur and Visakhapatnam.

Choose the incorrect statements:

- a) 1 only

- b) 2 only
- c) 3 only
- d) None

Q.78) Solution (d)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
Rock based cavern Reserves <ul style="list-style-type: none"> • Developed through Excavation • Complex, Slow and High Cost. • High Oil Absorbency compare to Salt based method. 	Salt based Cavern Reserves <ul style="list-style-type: none"> • Developed through solution mining (pumping water into geological formations with large salt deposits to dissolve the salt). • Simple, Fast and Cost effective. • Low Oil absorbency 	Currently, India has 3 strategic oil storage facilities at <ul style="list-style-type: none"> • Mangaluru - Karnataka • Padur - Karnataka • Visakhapatnam - Andhra Pradesh India is also in the process of expanding its SPR capacity at two locations <ul style="list-style-type: none"> • Chandikhol – Odisha • Padur – Karnataka

Context: A Govt-owned engineering firm is studying whether petroleum reserves can be developed in Rajasthan's salt caverns.

Q.79) Consider the following statements about Adverse Possession

1. It is a legal concept that allows a person who has unlawfully occupied someone else's land for a certain period of time to claim legal ownership of that land.
2. In India, adverse possession has been a part of the legal framework and is rooted in the idea that land must not be left vacant and to be put to judicious use.
3. To claim adverse possession, the occupier must prove that they have been in continuous, uninterrupted possession of the land for at least 24 years.

Choose the correct statements:

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

Q.79) Solution (a)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
<ul style="list-style-type: none"> • It is a legal concept that allows a person who has unlawfully occupied 	<ul style="list-style-type: none"> • In India, adverse possession has been a part of the legal framework for a long time and is rooted in the idea that land 	<ul style="list-style-type: none"> • To claim adverse possession, the occupier must prove that they

<p>someone else's land for a certain period of time to claim legal ownership of that land.</p> <ul style="list-style-type: none"> The claimant, or disseisor, must demonstrate that several criteria have been met before the court will allow their claim. 	<p>must not be left vacant and instead be put to judicious use.</p> <ul style="list-style-type: none"> The law of Adverse Possession in India is governed by the principle of The Limitation Law of 1963. According to the Indian legal system, if a property owner fails to make a claim towards their property for 12 years, and the same tenant continues to occupy the property for 12 years, the ownership rights to the property is transferred to the tenant 	<p>have been in continuous, uninterrupted possession of the land for at least 12 years and that their possession was open, notorious, and hostile to the true owner.</p>
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Context: The Law Commission of India recently recommended against enlarging the period of limitation provided under Articles 64, 65, 111, or 112 of the Limitation Act, 1963, which encapsulates the law on adverse possession.

Q.80) TP Rajendran Committee, recently seen in news is related to?

- Reviewing the criteria's to avail the benefits under Priority Sector lending
- Reviewing to the objections of industry on the ban of harmful pesticides
- Recommendation on Public Sector Banking Reforms in India
- Recommendation on Technological upgradation of MSMEs

Q.80) Solution (b)

Option b
Correct
<p>TP Rajendran Committee</p> <ul style="list-style-type: none"> Rajendran said that all chemicals and pesticides including the toothpaste we use is harmful for human health. What matters is the dosage, the formulation composition and the way humans have been asked to use the product. One cannot simply say that all pesticides are harmful and all pesticides are to be banned based on hearsay. What is important here is what Indian medical records say on the harm that a particular pesticide has done to human beings or to those who are exposed to it over a reasonable period of time. He said monocrotophos, has been in use in India for the past 30 or 40 years and there is absolutely no data provided by agencies to claim that there has been any adverse health impact due to their use. All pesticides have a label in them specifying good agriculture practices, with right dosage, time of application, precautions to be taken and so on. If somebody violates that, it is that individual's problem and not a national or a government issue. Govt notifies draft ban on 27 pesticides and gives 45 days for public feedback. It also forms another panel under T P Rajendran.

Context: It was in news.

Q.81) Consider the following statements about Bitumen

1. It is a dense, highly viscous, petroleum-based hydrocarbon.
2. It is obtained as a residue of the distillation of crude oil.
3. It is commonly used to waterproof boats and other marine vessels.

Choose the incorrect statements:

- a) 1 only
- b) 2 only
- c) None
- d) 3 only

Q.81) Solution (c)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • It is a dense, highly viscous, petroleum-based hydrocarbon. <p>Composition:</p> <ul style="list-style-type: none"> • It owes its density and viscosity to its chemical composition—mainly large hydrocarbon molecules known as asphaltenes and resins, which are present in lighter oils but are highly concentrated in bitumen. • In addition, bitumen frequently has a high content of metals, such as nickel and vanadium, and nonmetallic inorganic elements, such as nitrogen, oxygen, and sulfur. 	<ul style="list-style-type: none"> • It is found in deposits such as oil sands and pitch lakes(natural bitumen) or is obtained as a residue of the distillation of crude oil. • At the temperatures normally encountered in natural deposits, bitumen will not flow. In order to be moved through a pipe, it must be heated and, in some cases, diluted with a lighter oil. • Bitumen can deform permanently under heavy loads. Continued stress on the material can result in cracking. 	<p>Uses:</p> <ul style="list-style-type: none"> • Bitumen is known for its waterproofing and adhesive properties and is commonly used in the construction industry, notably for roads and highways. • It is commonly used to waterproof boats and other marine vessels. • It is also used by companies that create and manufacture roofing products. • It is used for sealing and insulating purposes in various building materials such as carpet tile backing and paint.

Context: Goa Power Minister recently said that bitumen used in road construction is a major cause of pollution.

Q.82) Consider the following statements about District Legal Services Authority

1. It is formed under Legal Services Authorities Act, 1987 to provide free legal aid and services to the weaker sections of the society.
2. It is a body that shall be constituted by the State Government in consultation with the Chief Justice of the High Court.
3. The Legal Services Authorities Act, 1987 provides that a District Authority requires the district judge as its chairman.

Choose the correct statements:

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

Q.82) Solution (a)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • It is formed under Legal Services Authorities Act, 1987 to provide free legal aid and services to the weaker sections of this society to make sure that opportunities for securing justice are not denied to any citizen because of economic or other disabilities. • It is a statutory body organized at the district level to provide effective monitoring of legal aid programmes and their composition. • Legal Services Authorities are statutory bodies that are formed or constituted in the various states of India by the Legal Services Authorities Act, 1987. 	<ul style="list-style-type: none"> • It is a body that shall be constituted by the State Government in consultation with the Chief Justice of the High Court. 	<ul style="list-style-type: none"> • The act provides that a District Authority requires the district judge as its chairman. • It shall also consist of a number of other members who have the experience and qualifications as prescribed by the State Government. • The members possessing such requirements may be nominated by the Government in consultation with the Chief Justice of the High Court. • The person to be appointed shall belong to the State Judicial Service not lower than rank than that of a Subordinate Judge or Civil Judge posted at the seat of the District Judiciary as Secretary of the District Authority. • The Assistant Commissioner of the concerned District acts as the Member Secretary of the District Authority.

Context: Recently, under the Department of Justice's (Ministry of Law and Justice) Nyaya Bandhu, Pro Bono Club, ICAI Law School, The ICAI University, Tripura, in association with District Legal Services Authority West Tripura, organized a Door-to-Door Legal Aid Campaign.

Q.83) Consider the following statements**Statement – I**

Inheritance rights of tribal women is neither covered under the Hindu Succession Act, 1956 nor under the Indian Succession Act, 1925.

Statement – II

The Scheduled Tribes of India are governed by customary laws in matters of inheritance, marriage and succession.

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement - I
- Statement-I is correct but Statement-II is incorrect
- Statement-I is incorrect but Statement-II is correct

Q.83) Solution (a)

Option a

Correct

Tribal inheritance Laws

- Inheritance rights of tribal women is neither covered under the Hindu Succession Act, 1956 nor under the Indian Succession Act, 1925.
- The Scheduled Tribes of India are governed by customary laws in matters of inheritance, marriage and succession.
- The customary tribal laws continue to discriminate against tribal women in the matter of succession.
- Hindu Succession Act, 1956 explicitly exempts tribes under section 2(2) of the act.
- Similarly, the Hindu Adoptions and Maintenance Act, 1956 and the Hindu Marriage Act, 1955 are also not applicable to the STs, unless extended by the central government or otherwise directed.
- The Supreme Court has directed the Centre to examine the issue and consider amending the provisions of the Hindu Succession Act so as to make it applicable to the members of the Scheduled Tribes.

Context: Union govt. considering equal property rights to Scheduled Tribe women

Q.84) Consider the following statements about Trimbakeshwar Temple

- It was constructed by 3rd Peshwa Balaji Bajirao also known as Nana Saheb.
- The entire temple is built with black stone.
- The Jyotirlinga here has three faces embodying Brahma, Vishnu, and Shiva.

How many of the statements given above are correct?

- Only One
- Only Two
- All Three
- None

Q.84) Solution (c)

Option c

Correct

- Location - Shri Trimbakeshwar Temple is located in Nashik City, Maharashtra.
- It is located near the mountain named Brahamagiri from which the river Godavari flows.
- There are 3 hills surrounding this temple – Brahmagiri, Nilagiri and Kalagiri.

- History - It was constructed by 3rd Peshwa Balaji Bajirao also known as Nana Saheb, in the mid-18th century (1740-1760).
- Special features - The entire temple is built with black stone.
- Trimbakeshwar Jyotirlinga is only one of the 12 jyotirlingas in India.
- Trimbakeshwar - It not only honor Lord Shiva but the other two gods in the Holy Trinity - Lord Vishnu and Lord Brahma as well.
- They all exist within the hollow space within the Shivalinga and hence the name Trimbakeshwar (3 Lords).
- They are covered by a jewelled crown that is believed to date to the era of the Pandavas.
- Jyotirlinga means column or pillar of light.
- The stambha symbol represents that there is no beginning or end.

Context: Shri Trimbakeshwar temple in Maharashtra witnessed communal tensions for the past 6 months.

Q.85) Which of the following countries have been at loggerheads over the sharing of River Helmand?

- Myanmar and China
- Armenia and Azerbaijan
- Afghanistan and Iran
- Laos and Cambodia

Q.85) Solution (c)

Option c

Correct

River Helmand

- The Helmand is the Afghanistan's longest river.
- It originates near Kabul in the western Hindu Kush Mountain range.
- It flows in a southwesterly direction through desert areas before emptying into Lake Hamun, which straddles the Afghanistan-Iran border.
- Lake Hamun - It is the largest freshwater lake in Iran.
- Fed by the Helmand, it used to be one of the world's largest wetlands, straddling 4,000 sq.km between Iran and Afghanistan.
- But it has since dried up, experts blame on drought and the impact of dams and water controls.
- The lake is of great importance for the regional environment and economy.
- River Helmand is the primary watershed for the endorheic Sistan Basin.

Context: Afghanistan and Iran have been at loggerheads over the sharing of river water for over a century.

Q.86) Consider the following statements about International Covenant on Civil and Political Rights (ICCPR)

1. It is a multilateral treaty adopted by the United Nations General Assembly in 1966.
2. It is monitored by the United Nations Human Rights Committee.
3. The ICCPR is part of the International Bill of Human Rights.

How many of the statements given above are correct?

- Only one

- b) Only two
- c) All Three
- d) None

Q.86) Solution (c)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • It is a multilateral treaty adopted by the United Nations General Assembly (UNGA) in 1966. 	<ul style="list-style-type: none"> • Monitored by the United Nations Human Rights Committee. • The covenant commits its parties to respect the civil and political rights of individuals, including the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights and rights to due process and a fair trial. 	<ul style="list-style-type: none"> • The ICCPR is part of the International Bill of Human Rights, along with the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Universal Declaration of Human Rights (UDHR).

Context: Nathasha Edirisooriya, a Sri Lankan standup comic, was arrested under the International Covenant on Civil and Political Rights (ICCPR) Act.

Q.87) Consider the following statements

1. Fuel cell AIP generates power through the reverse electrolysis of oxygen and hydrogen
2. Unlike Fuel cell AIP the Sterling propulsion system uses diesel fuel and liquid oxygen.
3. Fuel cell-based AIP does not need air, but requires storage of highly inflammable hydrogen on board.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q.87) Solution (c)**Statement Analysis**

Option c
Correct
<ul style="list-style-type: none"> • Fuel cell-based AIP generates power through the reverse electrolysis of oxygen and hydrogen which does not need air, but requires storage of highly inflammable hydrogen on board. • Fuel cell AIP systems are associated with German submarines of Class 212A and Class 214, and will power the Project 75-I submarines too. • The second type of AIP, based on the Stirling engine, is the first modern combat-ready system. It is a simple system that uses diesel fuel (typical for the submarine) and liquid oxygen, discharging the plant overboard at small and medium depths.

- Although AIP, based on the Stirling engine lacks stealth, it has proved relatively good in a small area, shallow depths, complex hydrology and heavy traffic, which require a submarine's acoustic signature to be minimised.
- Other fuel cell AIPs include Russia's alkaline fuel cells and India's phosphoric-acid fuel cells.
- The Defence R&D Organisation's (DRDO's) AIP system relies on the innovative Phosphoric Acid Fuel Cell (PAFC) technology.
- This PAFC technology is more rugged, tolerant of fuel impurities, offers longer life and efficiency and is much safer, since it generates hydrogen on board, rather than requiring the storage of hazardous hydrogen.

Context: In the recently announced Project 75-I, The submarines, powered by air-independent propulsion (AIP) are planned to be built under a Rs 45,000 crore programme.

Q.88) Consider the following statements about TAPI Pipeline

1. It will transport natural gas from the Galkynysh Gas Field in Turkmenistan to Afghanistan, Pakistan and India.
2. The project is being funded by the Asian Infrastructure Investment Bank (AIIB).
3. Recently India and Turkmenistan signed a Joint Implementation Plan (JIP) to speed up the project.

Choose the incorrect statements:

- a) 2 only
- b) 3 only
- c) 2 and 3
- d) None

Q.88) Solution (c)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Incorrect
<ul style="list-style-type: none"> • It is an 1,814-kilometre pipeline that aims to transport 33 billion cubic metres of gas from Turkmenistan to Afghanistan, Pakistan and finally, India. • It is also called the 'Peace Pipeline'. <p>Route:</p> <ul style="list-style-type: none"> • It will start from the Galkynysh gas field in Turkmenistan. • It will then pass through Afghanistan and Pakistan to finally reach the Indian 	<ul style="list-style-type: none"> • The TAPI project is being funded by the Asian Development Bank (ADB), which is also acting as transaction adviser for the development. 	<ul style="list-style-type: none"> • To speed up work on Turkmenistan, Afghanistan, Pakistan, and India (TAPI) gas pipeline project and finish the feasibility study as soon as possible, Pakistan and Turkmenistan recently signed a Joint Implementation Plan (JIP).

town of Fazilka(near the Indo-Pak border).		
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Context: To speed up work on Turkmenistan, Afghanistan, Pakistan, and India (TAPI) gas pipeline project and finish the feasibility study as soon as possible, Pakistan and Turkmenistan recently signed a Joint Implementation Plan (JIP).

Q.89) Consider the following statements about Agni Prime Missile

1. It is a long-range ballistic missile that will have a range of 3000 km to 5000 km.
2. It is a surface to a surface missile that can carry a payload of around 1,000 Kg or a nuclear warhead.

Choose the correct statements:

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

Q.89) Solution (b)

Statement Analysis

Statement 1	Statement 2
Incorrect	Correct
<ul style="list-style-type: none"> • It is a short-range ballistic missile that will have a range of 1000 km to 1500 km. • It is a new-generation nuclear capable ballistic missile. • The missile incorporates advanced features such as a new propulsion system and composite rocket motor casings. 	<ul style="list-style-type: none"> • It is a surface to a surface missile that can carry a payload of around 1,000 Kg or a nuclear warhead. • It is also a canister launch missile like country's first Intercontinental Ballistic Missile(ICBM), Agni-V, which is in the process of induction. By SFC. • Canister launch missiles with the warhead already fitted in the missile gives the command operational flexibility to store it for a longer period. • This makes it easier for the missile to be swiftly moved using rails, trucks or any other vehicles and can be fired from any platform.

Context: Recently, New Generation Ballistic Missile 'Agni Prime' was successfully flight-tested by Defence Research and Development Organisation (DRDO) from Dr APJ Abdul Kalam Island.

Q.90) Kakhovka Dam, recently seen in news is located on which of the following river?

- a) River Helmand
- b) River Dnieper
- c) River Danube
- d) River Mekong

Q.90) Solution (b)

Option b**Correct**

- The Kakhovka Dam is located on the Dnieper River.
- The primary purposes of the dam are hydroelectric power generation, irrigation and navigation.
- The Dnieper River is one of the major transboundary rivers of Europe rising in the Valdai Hills near Smolensk, Russia and flows through Belarus and Ukraine before draining into Black Sea.
- Dnieper River is the longest river of Ukraine and Belarus and the 4th longest river in Europe after the Volga, Danube and Ural rivers.
- Recently Kakhovka Dam was collapsed in the Ukraine Russia war with each side blaming each other for the cause of the collapse of the dam.
- The collapse of the dam could increase the global wheat prices since Ukraine being one of the largest exporters of wheat in the world.

Context: Recently Kakhovka Dam was collapsed in the Ukraine Russia war with each side blaming each other for the cause of the collapse of the dam.

Q.91) Consider the following statements

1. The Neolithic stage of development was attained during the Pliocene Epoch.
2. The Neolithic age was characterized by stone tools shaped by polishing or grinding.
3. Burzahom, Chiron and Edakkal caves are some important Neolithic sites in India.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q.91) Solution (b)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Correct
Neolithic, also called New Stone Age, is the final stage of cultural evolution or technological development among prehistoric humans. The Neolithic stage of development was attained during the Holocene Epoch (the last 11,700 years of Earth's history).	The Neolithic followed the Palaeolithic Period, or the age of chipped-stone tools, and preceded the Bronze Age, or the early period of metal tools. The Neolithic Revolution started in the Fertile Crescent, a region of the Middle East where humans first took up farming. The term Neolithic is most frequently used in connection with agriculture, which is the time when cereal cultivation was introduced. Features:	Some of the important Neolithic sites in India include Mehrgarh, the oldest Neolithic site in the province of Pakistan called Baluchistan, Burzahom in Kashmir, Chiron in Bihar and Uttar in Andhra Pradesh, Edakkal caves in Kerala.

It was characterized by stone tools shaped by polishing or grinding, dependence on domesticated plants or animals, settlement in permanent villages, and the appearance of such crafts as pottery and weaving. The houses were built of mud and reed and rectangular or circular shapes.

Context: A celt, belonging to the neolithic period, was recently discovered in Poothinatham village in Tamil Nadu.

Q.92) Consider the following statements about Sagar Samridhhi

1. It is an online dredging monitoring system which helps to accelerate 'Waste to Wealth' initiative of the Ministry of shipping.
2. Sagar Samridhhi is developed by National Technology Centre for Ports, Waterways and Coasts (NTCPWC).

Choose the incorrect statements:

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

Q.92) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • It is an online dredging monitoring system which helps to accelerate 'Waste to Wealth' initiative of the Ministry of shipping. • Sagar Samridhhi will bring in synergy among multiple input reports and produces real time dredging report. 	<ul style="list-style-type: none"> • Sagar Samridhhi is developed by National Technology Centre for Ports, Waterways and Coasts (NTCPWC). • Sagar Samridhhi will bring in more transparency and efficiency in the overall dredging system. • Sagar Samridhhi is in conducive to the mantra 'ZERO DEFECT and ZERO EFFECT' said by Prime Minister Narendra Modi. <p>National Technology Centre for Ports, Waterways and Coasts (NTCPWC)</p> <ul style="list-style-type: none"> • NTCPWC is a technological arm of Ministry of Ports, Shipping & Waterways (MoPSW). • NTCPWC was established under the Sagarmala Programme of MoPSW.

- The aim of the centre is to enable research & development for the marine sector, enabling solutions towards achieving the ultimate goal of building a robust marine industry in the country.
- This state-of-the-art centre has world class capabilities for undertaking the 2D & 3D investigations of research.

Context: Recently Union Minister of Ports, Shipping & Waterways (MoPSW) launched 'Sagar Samridhi'.

Q.93) Consider the following pairs

Lunar Missions	Countries
Danuri Mission	Russia
Luna 25	Japan
Hakuto R Mission	South Korea

How many of the pairs given above are correct?

- Only one
- Only two
- All Three
- None

Q.93) Solution (d)

Option d
Correct

Recent lunar missions in 2022 and planned missions

 <p>South Korea</p> <p>Danuri mission</p> <p>Mission: Orbiter will study moon from January 2023 after entering lunar orbit Launch: Aug. 2022</p>	 <p>Japan</p> <p>ispace's Hakuto-R Mission</p> <p>Mission: UAE rover and Japanese payload on a lander; crash-landed Launch: Dec. 2022</p>	 <p>India</p> <p>Chandrayaan-3</p> <p>Mission: Lunar exploration with a landing module and rover Launch: June 2023</p>
 <p>Russia</p> <p>Luna 25</p> <p>Mission: Sample gathering from southern pole Launch: July 2023</p>	 <p>U.S.A</p> <p>Artemis II</p> <p>Mission: Crewed mission to the moon Launch: 2024</p>	 <p>China</p> <p>Unnamed</p> <p>Mission: Crewed mission to the moon Launch: By 2030</p>

Context: Recently the china sent its first civilian into space intensifying the moon race between USA and china.

Q.94) Consider the following statements with respect to Fish Meal.

1. Fish meal is a proteinaceous flour material containing a high level of protein and appreciable quantities of lipid and minerals.
2. Usage of fish waste in fish meal reduces water pollution and increases immunity in animals.

Choose the incorrect statements:

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

Q.94) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • Fish meal is a proteinaceous flour material containing a high level of protein and appreciable quantities of lipids, essential amino acids, vitamins, essential minerals (such as phosphorus, calcium and iron) and other growth factors. • Each year, around 20 million tonnes of raw material are being used to produce fishmeal and fish oil. • About 70 % of fish and crustaceans produced in aquaculture are fed with protein-rich feed wherein fish meal act as key ingredient. 	<ul style="list-style-type: none"> • Usage of fish waste in fish meal reduces water pollution and increases immunity in animals, reduces mortality in young lambs & piglets. • Fish meal and fish oil producers of India should be brought under one umbrella with the goal to promote the advancement and welfare of the fisheries industry.

Context: Recently Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying organized a webinar on 'Sustainability of Fish Meal Industry and the Livelihoods of Fishermen'.

Q.95) Diego Garcia Island, recently seen in news is located in which of the following Ocean?

- a) Southern Ocean
- b) Atlantic Ocean
- c) Indian Ocean
- d) Arctic Ocean

Q.95) Solution (c)

Option c
Correct
Diego Garcia Island:

- It is a coral atoll, the largest and southernmost member of the Chagos Archipelago, in the central Indian Ocean.
- It is a part of the British Indian Ocean Territory.
- It consists of a V-shaped sand-fringed cay and its lagoon is open at the north end.
- This island was discovered by the Portuguese in the early 16th century.

Context: Dozens of migrants have been stranded for months on Diego Garcia Island in the Indian Ocean after being rescued from their struggling fishing boat.

Q.96) Consider the following statements

1. Electrolysis is a chemical decomposition achieved by passing an electric current through a liquid or a solution that contains ions.
2. Electrolysis is used to extract and purify metals from their ores.
3. Green hydrogen is achieved through a process of electrolysis powered by renewable energies such as wind or solar.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q.96) Solution (c)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • Electrolysis is a chemical decomposition achieved by passing an electric current through a liquid or a solution that contains ions. • Electrolysis requires an electrolytic cell that consists of positively and negatively charged electrodes submerged in a solution containing particles of the opposite charge. • As the electric current passes through the solution, the negatively charged electrode (cathode) attracts the positively charged ions, while the positively charged electrode (anode) attracts the negatively charged ions. • Depending on the solution and the materials in use, the process can release gases, form solids, or even leave behind a completely new solution. 	<ul style="list-style-type: none"> • Electrolysis has many uses in the commercial sector, in particular to extract and purify metals from their ores. 	<ul style="list-style-type: none"> • Green hydrogen is achieved through a process of electrolysis powered by renewable energies such as wind or solar.

Context: It was in news

Q.97) Consider the following statements about Lightning

- Lightning is recognized by the World Meteorological Organisation as an essential climate variable.
- Lightning produces nitrogen oxides, which are strong greenhouse gases that trap earth's outgoing heat.

Choose the incorrect statements:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Q.97) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> Lightning is an electrical discharge caused by imbalances between storm clouds and the ground, or within the clouds themselves. Most lightning occurs within the clouds. World Meteorological Organisation recognises lightning as an essential climate variable that critically contributes to the characterisation of the earth's climate. 	<ul style="list-style-type: none"> Lightning also produces nitrogen oxides, which are strong greenhouse gases that trap earth's outgoing heat and retain it in the atmosphere, altering climate and weather patterns. Lightning is the main precursor of natural wildfires. Long-Continuing-Currents or LCC is continuing electrical currents in lightning flowing for more than some tens of milliseconds which are likely to produce wildfires. According to a recent study estimated increase of LCC lightning over land by 47% indicates a higher risk of lightning ignited wildfires in the future. Increase in lightning rate and decreasing LCC rate is leading to forest fire and this concept is specific to few regions like Canada and doesn't follow across the earth. As global warming increases the earth's surface temperature, lightning activity is also predicted to increase.

Context: In recent times large scale wildfires in Canada are mainly caused due to lightning.

Q.98) Consider the following statements about Ram Prasad Bismil

- He wrote patriotic verses in Hindi and Urdu under pen names like 'Agyat' and 'Desh Priya'.
- Bismil started a revolutionary organisation called Matrivedi (The Altar of the Motherland).
- He was involved in Kakori Conspiracy, 1925.

How many of the statements given above are correct?

- Only one
- Only two
- All Three
- None

Q.98) Solution (b)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Correct
<ul style="list-style-type: none"> Ram Prasad Bismil was born on June 11, 1897 in the United Provinces (now Uttar Pradesh) Shahjahanpur district. He joined the Arya Samaj and became a prolific writer and poet. He wrote patriotic verses in Hindi and Urdu under pen names like 'Agyat', 'Ram', and the one that is most known 'Bismil'. He wrote the poem Mera Janm (My Birth), venting out his anger over death sentence handed out to Arya Samaj missionary Bhai Parmanand. 	<ul style="list-style-type: none"> Bismil started a revolutionary organisation called Matrivedi (The Altar of the Motherland) and joined forces with fellow revolutionary Genda Lal Dixit. Dixit was well-connected with dacoits of the state and wanted to utilise them in the armed struggle against the British. In 1918, Bismil wrote the famous poem, Mainpuri ki Pratigya. In order to collect funds for their parties, he carried out at least 3 instances of looting at government offices in Mainpuri district. 	<ul style="list-style-type: none"> In August 1925, an armed robbery took place on board the Kakori Express which was going from Shahjahanpur to Lucknow. It was carrying money that had been collected at various railway stations and was to be deposited in Lucknow. In this planned robbery, carried out to fund the activities of the HSRA, Bismil, Khan and over 10 other revolutionaries stopped the train and fled with the cash they found in it. Within a month of the robbery, many members of the HSRA were arrested. In September 1926, Bismil was arrested. After 18 month trial, Bismil was sentenced to death. The sentence was carried out on December 19, 1927.

Context: 126th birth anniversary of Ram Prasad Bismil, a revered symbol of patriotism and Hindu-Muslim unity, was commemorated recently.

Q.99) Consider the following statements about New Development Bank (NDB)

- The Bank is governed by a Board of Governors made up of the finance ministers of the five BRICS countries, and a Board of Directors.
- No new members other than the BRICS countries can become a member of NDB.

Choose the correct statements:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Q.99) Solution (a)**Statement Analysis**

Statement 1	Statement 2
Correct	Incorrect
<ul style="list-style-type: none"> NDB, formerly referred to as the BRICS Development Bank, is a multilateral development bank established by the BRICS countries (Brazil, Russia, India, China and South Africa). Objective: Financing infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries. <p>Governance Structure:</p> <ul style="list-style-type: none"> The Bank is governed by a Board of Governors made up of the finance ministers of the five BRICS countries, and a Board of Directors. Voting power within the Board is based on each country's shares in the bank. 	<ul style="list-style-type: none"> While new members can join the NDB, the five BRICS countries will retain a minimum of 55% of total shares. The NDB's management includes a presidency which rotates among BRICS members, and four vice presidents who are selected from the remaining BRICS countries.

Context: Honduras President recently requested the country's admission to the BRICS-led New Development Bank (NDB).

Q.100) JATAN, often seen in the news, is associated with which of the following Ministry?

- Minister for Culture and Tourism
- Ministry of Corporate Affairs
- Ministry of Commerce and Industry
- Ministry of Micro, Small and Medium Enterprises

Q.100) Solution (a)

Option a
Correct
<ul style="list-style-type: none"> Jatan Virtual Museum Builder is the software being used for digitizing records of antiquities in the various collections that are displayed in a common portal for the public view. Jatan can create 3D virtual galleries and provide public access through web, mobile or touch screen kiosks. The Digitization Cell of National Museum is the nodal unit for Digitization of Museum Objects in JATAN platform. Digitisation process involves 3D scanning which is carried out by Ministry of Electronics and Information Technology (MeitY). The 3D digitisation would be done using the JATAN virtual museum builder software which has been designed and developed by Human Centres Design and Computing Group, Centre for Development of Smart Computing, Pune.

Context: Recently Minister for Culture and Tourism launched Museums of India mobile application as a part of JATAN project.

Q.101) Consider the following statements about Countervailing Duties (CVDs)

- CVDs are tariffs levied on imported goods to offset subsidies made to producers of these goods in the exporting country.

2. Countervailing Duties is the only trade remedy that is allowed under World Trade Organisation (WTO) rules.

Choose the correct statements:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Q.101) Solution (a)

Statement Analysis

Statement 1	Statement 2
Correct	Incorrect
<ul style="list-style-type: none"> Countervailing Duties (CVDs) are tariffs levied on imported goods to offset subsidies made to producers of these goods in the exporting country. Countervailing measures are put in place to offset imports being sold at unfair prices due to government subsidies in their country of origin. 	<ul style="list-style-type: none"> Countervailing Duties is one of three types of trade remedies that are allowed under World Trade Organisation (WTO) rules. Three types of trade remedies that are allowed under World Trade Organisation (WTO) rules includes <ul style="list-style-type: none"> Anti-dumping Countervailing Duties Safeguard Actions

Context: Recently UK government removed the counter duty for Stainless steel bars and rods imported from India.

Q.102) Consider the following statements about Dugd Sankalan Sathi Mobile App

- It aims to improve the quality of milk by fostering transparency among stakeholders.
- It streamlines operations at the grassroots village level, including Milk Cooperative Societies.
- The app was launched by Ministry of Heavy Industries.

How many of the statements given above are correct?

- Only one
- Only two
- All Three
- None

Q.102) Solution (c)

Statement Analysis

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct

<ul style="list-style-type: none"> • Dugdh Sankalan Sathi Mobile App aims to improve the quality of milk, foster transparency among stakeholders. • It will bring transparency, efficiency and empowerment to all stakeholders involved in the milk collection process, ultimately benefiting the milk producers and contributing to the growth of the dairy sector. 	<ul style="list-style-type: none"> • It also Streamline operations at the grassroots village level, including Milk Cooperative Societies. • The app is designed and developed by Rajasthan Electronics & Instruments Limited (REIL). • REIL is a “Mini Ratna” Central Public Sector Enterprises under the Ministry of Heavy Industries. • It digitize the process and facilitate Direct Beneficiary Transfer to milk producers”. 	<ul style="list-style-type: none"> • Ministry of Heavy Industries recently launched Dugdh Sankalan Sathi Mobile App to Transform Indian Dairy Industries. Key features and benefits of the app includes • Increased transparency among stakeholders, • Online monitoring of daily milk poured at Milk Cooperative Societies, • Real-time milk price updates from the cloud server, ensuring transparency and eliminating human errors, • Direct beneficiary transfers of milk payment and government subsidies to the milk producers' bank accounts through the app, • Push notifications for milk collection to the milk producers' app and • Multilingual app with support for English, Hindi, Punjabi, Telugu, and more.
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Context: Ministry of Heavy Industries recently launched Dugdh Sankalan Sathi Mobile App to Transform Indian Dairy Industries.

Q.103) Consider the following statements about Sea slaters

1. Sea Slater is a fast-running semi-terrestrial isopod.
2. It is native to the Western Pacific Ocean and found in the coastal regions of Tamil Nadu.
3. They mostly eat dead plant and fungal matter and act as natural recyclers.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

Q.103) Solution (b)

Statement Analysis

Option b

Correct

- Ligia oceanica is a fast-running semi-terrestrial isopod commonly known as the Sea Slater.
- Isopod is an order of crustaceans that includes woodlice and their relatives that live in the sea, in fresh water, or on land.
- Sea slaters is a species of woodlouse.
- It is native to the Northeast Atlantic from Norway to Morocco and the western Baltic.

- It is found on rocky shorelines, wharf pilings and harbor areas where it inhabits the borders of the land and sea.
- They mostly eat dead plant and fungal matter and act as important natural recyclers, just like worms.
- While sea slaters are not a threatened or vulnerable species, they act as a natural recycler in local ecosystem.
- They can also be an important source of food for many birds that live on the seashore.
- The sea slaters turned darker when confronted with a point-source light but diffused light confused them and caused them to become lighter, making them easier for predators to spot.

Context: In a new study published in *Proceedings of the Royal Society B*, shows that diffused pollution at night can confuse Sea slaters, rendering their camouflage useless.

Q.104) Consider the following statements about Microneedles

1. Microneedles belong to Transdermal drug delivery system.
2. Microneedles typically measure between 0.1 to 1 mm in length.
3. Microneedle patches can help inject insulin just below the skin surface without pricking deep like normal syringes.

How many of the statements given above are incorrect?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q. 104) Solution (d)

Statement Analysis

Option d
Correct
<ul style="list-style-type: none"> • Microneedles belong to Transdermal drug delivery system (TDD). • TDD is a painless method of delivering drugs systemically by applying a drug formulation onto intact and healthy skin. • Microneedles are manufactured using complex procedures, like photolithography, that require clean rooms, and are time-consuming which limits the mass production. • Single-step drop-casting is a simple process to produce Microneedle without needing clean room facilities, and sophisticated instrumentation. • Microneedles typically measure between 0.1 to 1 mm in length. • It can precisely target the drug upon entry into the stratum corneum. • It address certain key challenges within transdermal delivery such as collapsing veins with a repetitive injection, needle phobia, sustained delivery, etc. • Microneedle patches can help inject insulin just below the skin surface without pricking deep like normal syringes.

Context: Recently Researchers at the Indian Institute of Science (IISc.) and the Institute for Stem Cell Science and Regenerative Medicine (inStem) have found a novel method to produce microneedles.

Q. 105) Drip Pricing, often seen in the news, refers to?

- It is a technique in which firms advertise only part of a product's price and reveal other charges later at final billing.
- It is a revenue management pricing strategy in which businesses set flexible prices for products or services based on current market demands.
- It is a price setting strategy that a firm can employ when launching a product or service for the first time.
- It is a microeconomic pricing strategy where identical or largely similar goods or services are sold at different prices by the same provider in different market segments.

Q. 105) Solution (a)**Option a****Correct**

- Drip pricing is a pricing technique in which firms advertise only part of a product's price and reveal other charges later at final billing.
 - Deceptive online patterns are a violation of the Consumer Protection Act.
 - A robust self-regulatory mechanism for the larger framework on online deceptive patterns is the need of the hour.
 - Recently Advertising Standards Council of India (ASCI) released the guidelines on price Pricing
- Key highlights of the guidelines
- The guidelines state that “quoted prices” in advertisements and e-commerce sites must include non-optional taxes, duties, fees and charges that apply to all buyers.
 - When an ad or an element in an ad directly or indirectly implies one outcome of the consumer’s action but instead serves up another, it is misleading.
 - Implying that quantities of a product or service are “more limited than they are” to create a false sense of urgency will be considered misleading.
 - Guidelines is expected to create communication and systems that respect user autonomy, improve transparency and encourage well-informed choices.
 - It will play a crucial role in fostering a more ethical and trustworthy advertising ecosystem and protecting consumer trust.
 - The Advertising Standards Council of India (ASCI) is a voluntary self-regulatory organization of the advertising industry in India.

Context: Recently Advertising Standards Council of India (ASCI) released the guidelines on price Pricing to check ‘dark patterns’ such as non-declaration of the final price upfront or creating a sense of false urgency to woo consumers.

Q. 106) Consider the following statements about Gandhi Peace Prize

- It is a biennial award instituted by the Government of India in 1965.
- It was instituted on the occasion of the 100th Birth Anniversary of Mahatma Gandhi as a tribute to the ideals espoused by Mahatma Gandhi.
- The prize can be given to institutions, individuals and organisations.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q. 106) Solution (a)**Statement Analysis**

Option a
Correct
<ul style="list-style-type: none"> • It is an annual award instituted by the Government of India in 1995, • It was instituted on the occasion of the 125th Birth Anniversary of Mahatma Gandhi as a tribute to the ideals espoused by Mahatma Gandhi. • The award is open to all persons regardless of nationality, race, language, caste, creed or gender. • The award carries an amount of 1 crore, a citation, a plaque and an exquisite traditional handicraft/handloom item. • The prize can be given to institutions, individuals and organisations. • Recent awardees include Sultan Qaboos Bin Said Al Said, Oman (2019) and Bangabandhu Sheikh Mujibur Rahman (2020), Bangladesh.

Context: The Gandhi Peace Prize for 2021 will be conferred on Gita Press, Gorakhpur.

Q. 107) It is India's second-largest mangrove ecosystem after the Sunderbans. This National Park is a network of creeks and canals which are inundated with waters from rivers Dhamra and Patasala, forming a unique ecosystem. It has one of the largest populations of endangered saltwater crocodiles in India.

The above description is related to which of the following National Park?

- a) Galathea National Park
- b) Bhitarkanika National Park
- c) Gulf of Mannar Marine National Park
- d) Rani Jhansi Marine National Park

Q. 107) Solution (b)

Option b
Correct
<p>Bhitarkanika National Park:</p> <ul style="list-style-type: none"> • Location: It is located in Kendrapara district in the state of Odisha. • It is India's second-largest mangrove ecosystem after the Sunderbans. • It is a 145 Sq. km large national park which was designated on 16th September 1998 and obtained the status of a Ramsar site in August 2002, e., the second Ramsar site of the State after the Chilika Lake. • This National Park is a network of creeks and canals which are inundated with waters from rivers Brahmani, Baitarani, Dhamra and Patasala, forming a unique ecosystem. <p>Flora: Mangrove species, casuarinas, and grasses like the indigo bush.</p> <p>Fauna:</p>

- Bhitarkanika has one of the largest populations of endangered saltwater crocodiles in India.
- The Gahirmatha Beach, which forms the boundary of the park in the east, is the largest colony of the Olive Ridley Sea Turtles.
- Other mammals include monkeys, jackals, common langurs, otter, sambar deer, jungle cats, fox, Mongoose, wolfs, fishing cats, hyenas, etc.

Context: A 10-year-old boy was allegedly killed recently following an attack by a crocodile sparking fresh bouts of man-animal conflict in areas in the close vicinity of Bhitarkanika National Park.

Q. 108) Consider the following statements about International Fund for Agricultural Development (IFAD)

1. It is an international financial institution and a specialised agency of the United Nations.
2. It brings out the Rural Development Report every year.

Choose the incorrect statements:

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

Q. 108) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • IFAD is an international financial institution and specialized United Nations agency working in the field of poverty eradication in the rural areas of developing countries providing grants and loans with low interest for allied projects. • It works with marginalized and vulnerable groups such as farmers with small holdings, foresters, Pastoralists, Fishermen and small scale entrepreneurs by giving them disaster preparedness, access to weather information, technology transfer and social learning. 	<p>Objectives:</p> <ul style="list-style-type: none"> • To increase the productive capacity of poor people. • To increase benefits for them from market participation. • To strengthen the environmental sustainability & climate resilience of their economic activities. <p>Reports:</p> <ul style="list-style-type: none"> • It brings out the Rural Development Report every year.

Context: The International Fund of Agricultural Development (IFAD) recently lauded India for reviving focus on millets and exporting 1.8 million tonnes of wheat to 18 countries that faced an acute shortage of food last year.

Q.109) Consider the following statements about Drugs Technical Advisory Board

1. It is the highest statutory decision-making body on technical matters related to drugs in India.
2. It functions under Ministry of Health and Family Welfare.

Choose the correct statements:

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

Q.109) Solution (c)**Statement Analysis**

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • It is the highest statutory decision-making body on technical matters related to drugs in India. • It is established as per the Drugs and Cosmetics Act, 1940. • It is part of the Central Drugs Standard Control Organization (CDSCO). 	<ul style="list-style-type: none"> • Nodal Ministry: Ministry of Health and Family Welfare. • Function: It advises the Central Government and the State Governments on technical matters arising out of the administration of the Drugs and Cosmetics Act, of 1940 and to carry out the other functions assigned to it by this Act.

Context: Recently, the Drugs Technical Advisory Board (DTAB) recommended banning the manufacture, sale and distribution of two non-steroid anti-inflammatory drugs (NSAIDs) Ketoprofen and Aceclofenac.

Q.110) Consider the following statements

1. United Nations Convention to Combat Desertification (UNCCD) is the only legally binding framework set up to address desertification and the effects of drought.
2. UN Environment Assembly is the world's highest level decision making body on the environment.
3. Great Green Wall and Changwon are the initiatives of United Nations Convention to Combat Desertification.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q.110) Solution (c)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
<ul style="list-style-type: none"> • The United Nations Convention to Combat Desertification (UNCCD) was established in 1994 to protect and restore our land 	<ul style="list-style-type: none"> • It is the governing body of the UN Environment Programme. • It is the world's highest-level decision-making body on the environment. 	The flagship initiatives of UNCCD includes <ul style="list-style-type: none"> • Great Green Wall Initiative

<p>and ensure a safer, just, and more sustainable future.</p> <ul style="list-style-type: none"> UNCCD promote practices that avoid, reduce and reverse land degradation and are the driving force behind Sustainable Development Goal 15 and Land Degradation Neutrality. UNCCD is the only legally binding framework set up to address desertification and the effects of drought. 	<ul style="list-style-type: none"> The Assembly is made up of the 193 UN Member States and convenes every two years to advance global environmental governance. It was created in June 2012, during the United Nations Conference on Sustainable Development, also referred to as RIO+20. 	<ul style="list-style-type: none"> Changwon Initiative International Drought Resilience Alliance Greening Drylands Partnership The Drought Initiative The Ankara Initiative
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Context: On World Desertification Day (June 17 2023) United Nations Convention to Combat Desertification highlighted that granting equal land rights to women can reduce world hunger significantly.

Q.111) Consider the following about United Nations High Seas Treaty

- It is a legally binding treaty to protect the world's oceans that lie outside national boundaries.
- It aims to place 30% of the seas into protected areas by 2025.

Choose the correct statements:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Q. 111) Solution (a)

Statement Analysis

Statement 1	Statement 2
Correct	Incorrect
<ul style="list-style-type: none"> It is the first-ever treaty to protect the world's oceans that lie outside national boundaries. It is also known as the 'Paris Agreement for the Ocean.' It is a legally binding treaty that aims at protecting, caring for, and ensuring the responsible use of the marine environment, maintaining the integrity of ocean ecosystems, and conserving the inherent value of marine biological diversity. The treaty is built on the legacy of the UN Convention on the Law of the Sea (UNCLOS), which is the last international agreement on 	<p>Highlights of the treaty:</p> <ul style="list-style-type: none"> It aims to place 30% of the seas into protected areas by 2030(a pledge made by countries at the UN biodiversity conference in 2022). It will provide a legal framework for establishing vast marine protected areas (MPAs) to protect against the loss of wildlife and share out the genetic resources of the high seas. It also covers environmental assessments to evaluate the potential damage of commercial activities, such as deep-sea mining. The treaty aims at strengthening resilience and contains provisions based on the polluter-

ocean protection, signed 40 years ago in 1982.
UNCLOS established an area called the high seas.

pays principle as well as mechanisms for
disputes.

Context: The world's first international treaty to protect the high seas was recently adopted by the United Nations.

Q. 112) Which of the following countries border Mediterranean Sea?

1. Syria
2. Turkey
3. Spain
4. Tunisia
5. Morocco

Choose the correct code:

- a) 2, 3 and 5
- b) 1, 3, 4 and 5
- c) 1, 2 and 4
- d) All the above

Q. 112) Solution (d)



Context: Russia's Defence Ministry recently said that a Russian warship and cargo ship rescued 68 people overnight from a boat in the Mediterranean Sea.

Q. 113) Consider the following statements about Phonons

1. Phonons and electrons are the two main types of elementary particles in solids.

2. Phonons are essential particles in the phenomenon of superconductivity.

Choose the correct statements:

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

Q. 113) Solution (c)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • Phonon is a unit of vibrational energy that arises from oscillating atoms within a crystal. • Each phonon is the collective vibration of around one quadrillion atoms. • A phonon is a definite discrete unit or quantum of vibrational mechanical energy just as a photon is a quantum of electromagnetic or light energy. • Phonons and electrons are the two main types of elementary particles or excitations in solids. 	<ul style="list-style-type: none"> • It determine such things as the speed of sound within a material and how much heat it takes to change its temperature. • It is essential in the phenomenon of superconductivity. • Acoustic beam-splitter is a tiny device which can be used to emit and detect individual phonons.

Context: Recent study have found that phonons can be used to build quantum computers.

Q. 114) Consider the following statements about President's Rule

1. President's rule can be extended for a maximum period of three years with the approval of the Parliament, every six months.
2. A law made by the Parliament or president or any other specified authority continues to be operative even after the President's Rule.
3. Every resolution approving the proclamation of President's Rule or its continuation can be passed by either House of Parliament only by a simple majority.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q. 114) Solution (c)

Statement Analysis

Option c
Correct

- Article 355 imposes a duty on the Centre to ensure that the government of every state is carried on in accordance with the provisions of the Constitution.
- The President's Rule can be proclaimed under Article 356 on two grounds one mentioned in Article 356 itself and another in Article 365.
- Article 356 empowers the President to issue a proclamation, if he is satisfied that a situation has arisen in which the government of a state cannot be carried on in accordance with the provisions of the Constitution.
- Article 365 says that whenever a state fails to comply with or to give effect to any direction from the Centre, it will be lawful for the president to hold that a situation has arisen to impose president's rule.
- It can be extended for a maximum period of three years with the approval of the Parliament, every six months.
- President's Rule has been imposed in an arbitrary manner for political or personal reasons.
- A law made by the Parliament or president or any other specified authority continues to be operative even after the President's Rule.
- A proclamation imposing President's Rule must be approved by both the Houses of Parliament within two months from the date of its issue.
- Every resolution approving the proclamation of President's Rule or its continuation can be passed by either House of Parliament only by a simple majority.
- President's Rule can be proclaimed
- When the government of a state cannot be carried on in accordance with the provisions of the Constitution due to reasons which may not have any connection with war, external aggression or armed rebellion.

Context: The union government have reaffirmed that president's rule is the last resort to continuing Manipur violence.

Q. 115) EX KHAAN QUEST 2023, often seen in the news, is associated with which of the following?

- Multinational Peacekeeping Joint Exercise
- Bilateral army exercise between India and Mongolia
- Multinational Naval exercise in Indian Ocean
- Trilateral Navy exercise involving Singapore-India-Thailand to bolster maritime relationships

Q. 115) Solution (a)

Option a

Correct

Exercise Khaan Quest 2023:

- It features participation from military contingents and observers from over 20 countries.
- The exercise is co-sponsored by Mongolian Armed Forces (MAF) and the United States Army Pacific Command (USARPAC).
- The Indian Army is represented by a contingent from the GARHWAL RIFLES.
- The 14-day exercise is aimed at enhancing the interoperability of the participating nations, sharing experience and training uniformed personnel for the United Nations Peacekeeping Operations (UNPKO).
- The exercise will prepare participants for future UN Peacekeeping missions, develop peace operations capabilities and enhance military readiness.

- The exercise includes Command Post Exercise (CPX), Field Training Exercises (FTX), combat discussions, lectures and demonstrations.

Context: Recently, the multinational Peacekeeping Joint Exercise “Ex Khaan Quest 2023” commenced in Mongolia.

Q. 116) Consider the following statements about Lake Victoria

1. It is located at the border of Kenya, Tanzania and Rwanda on the African continent.
2. It is the largest tropical lake in the world.
3. The White Nile is the only river flowing out of the Lake.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None

Q.116) Solution (b)

Statement Analysis

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Correct
<ul style="list-style-type: none"> • It is located at the border of Kenya, Tanzania and Uganda on the African continent. • Associated countries - The basin's catchment area traverses through 5 East African Countries - Tanzania (44%), Kenya (22%), Uganda (16%), Rwanda (11%) and Burundi (7%). • This trans-boundary asset is shared by Tanzania (51%), Uganda (43%) and Kenya (6%). 	<p>Features - Lake Victoria is the</p> <ul style="list-style-type: none"> • Largest freshwater lake in Africa • World's largest tropical lake • Second largest freshwater lake in the world, after Lake Superior in North America • Largest inland water fishery sanctuary in East Africa 	<p>Rivers - A number of important rivers flow into Lake Victoria including the River Mara, Kagera, Yala, Nyando, Bukora and Katonga.</p> <ul style="list-style-type: none"> • The White Nile is the only river flowing out of the Lake. • The Kagera (Akagera) River, which drains the mountains of Burundi and Rwanda, is considered as the source of the Nile.

Context: A recent report shows that heavy rains, wind storms, and floods threaten the survival and water access of the communities living in the Lake Victoria Basin (LVB), East Africa.

Q. 117) Consider the following statements about Submersibles

1. Submersibles can be fully submerged into water and cruise using their own power supply and air renewal system.
2. Submersibles do not function as an autonomous craft and relies on a support platform to deploy and return.

Choose the incorrect statements:

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

Q. 117) Solution (d)**Statement Analysis**

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • Titan is a submersible capable of taking 5 people up to a depth of 4000 meters or more than 13,100 feet. • Submersibles are small, limited range watercrafts designed for a set mission, that are built with characteristics that allow them to operate in a specific environment. • These vessels are typically able to be fully submerged into water and cruise using their own power supply and air renewal system. 	<ul style="list-style-type: none"> • A submersible, unlike a submarine, doesn't have enough power to launch itself into the ocean and return on its own. • Instead, it relies on a support ship to launch it and recover it. • Submersibles always operate in conjunction with a mother ship. • Also, submersible doesn't have large propulsion systems and ballast systems like Submarine. • Unlike submarines, submersibles also have a viewport and external cameras to view the outside space surrounding the vessel. • The uses of Submersible include <ul style="list-style-type: none"> • Deep sea testing of hardware and software, • Site survey and inspection, • Research and data collection and • Film and media production

Context: Recently tourist who went to visit titanic wreckage in Titan submersible vessel went missing.

Q. 118) Consider the following statements about Global Stocktake

1. Global Stocktake is a periodic review of progress on Global Stock Market.
2. Under the mandate of IMF's financial agreement, it must be conducted every three years.

Choose the correct statements:

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

Q. 118) Solution (d)**Statement Analysis**

Statement 1	Statement 2
Incorrect	Incorrect
<ul style="list-style-type: none"> • The Global Stocktake is a periodic review of progress on climate action. 	<ul style="list-style-type: none"> • As a mandate of Paris Agreement, it must be conducted every five years starting from 2023.

- | | |
|---|--|
| <ul style="list-style-type: none"> • It is a Party-driven process conducted in a transparent manner and with the participation of non-Party stakeholders. • It enables countries and other stakeholders to see where they're collectively making progress toward meeting the goals of the Paris Agreement. • It also decides ways and means to enhance global action to bridge the adequacy gap. | <ul style="list-style-type: none"> • Mitigation Work Programme (MWP) is a part of Global Stocktake which was set up at COP26 in Glasgow in 2021. • Annexure I of the 1992 UN Framework Convention on Climate Change (UNFCCC) include group of about 40 rich and industrialised countries which are hugely responsible for climate change. • According to Intergovernmental Panel on Climate Change global emissions have to come down by 43% from 2019 levels by 2030 to keep alive hopes of meeting the 1.50 target. • The loss and damage need of developing countries are assessed to be about USD 400 billion every year. • Developing countries need as much as USD 6 trillion before 2030 just to implement their climate action plans. |
|---|--|

Context: In the recently conducted Bonn climate conference the decisions on Global Stocktake was finally taken.

Q. 119) Consider the following statements about International Centre for Integrated Mountain Development (ICIMOD)


1. It develops and shares research and innovations to empower people in the 8 regional member countries of the Hindu Kush Himalayan (HKH).
2. India, Kazakhstan and Nepal are members of ICIMOD.

Choose the correct statements:

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

Q. 119) Solution (a)

Statement Analysis

Statement 1	Statement 2
Correct	Incorrect
<ul style="list-style-type: none"> • ICIMOD is an intergovernmental knowledge and learning centre • It develops and shares research, information, and innovations to empower people in the eight regional member countries of the Hindu Kush Himalayan (HKH). • It is based at Kathmandu, Nepal. 	<p>Regional member countries</p> <p>We are an intergovernmental institution set up by our eight IMCs, whose governments support us and provide us strategic guidance.</p>  <p>AFGHANISTAN BANGLADESH BHUTAN CHINA INDIA MYANMAR NEPAL PAKISTAN</p>

- Ice and snow in the Hindu Kush Himalayan ranges is an important source of water for the rivers, which flow through 16 countries in Asia.
- Ice and snow in the Hindu Kush Himalayan ranges provide fresh water to 240 million people in the mountains and another 1.65 billion downstream.
- Various earlier reports have found that the cryosphere, regions on Earth covered by snow and ice are among the worst affected by climate change.
- Himalayan glaciers disappeared 65% faster since 2010 than in the previous decade and reducing snow cover due to global warming will result in reduced fresh water for people living downstream.

Context: A recent report by International Centre for Integrated Mountain Development (ICIMOD) reveals that Himalayan glaciers could lose 80% of their volume if global warming isn't controlled.

Q. 120) Thol Pavai Koothu Puppetry, recently seen in news is practiced in which of the following state?

- Tamil Nadu
- Andhra Pradesh
- Kerala
- Telangana

Q. 120) Solution (a)

Option a

Correct

- Muthuchandra Rao, a renowned puppet artist from the Kanniyakumari district in Tamil Nadu, has been invited to perform at the Fetna 36th Convention in the United States (Federation of Tamil Sangams of North America (FeTNA)).
- Tholpavaikoothu is a form of Shadow puppetry made of three Tamil terms, thol, meaning leather, pavai, meaning doll, and koothu, meaning the play or drama. This form of art is especially popular in the Madurai, Kanyakumar (TN), Palakkad Thrissur and Malappuram districts of Kerala

Context: Muthuchandra Rao, a renowned puppet artist from the Kanniyakumari district in Tamil Nadu, has been invited to perform at the Fetna 36th Convention in the United States (Federation of Tamil Sangams of North America (FeTNA)).

Q.121) Consider the following statements about Gender Gap Index, 2023

1. Global Gender Gap Report is released biennially by the World Economic Forum.
2. India was ranked at 127 out of 146 countries in terms of gender parity in 2023 index.
3. According to the report, India had attained parity in enrolment across all levels of education.

How many of the statements given above are correct?

- Only one
- Only two

- c) All Three
d) None

Q. 121) Solution (b)**Statement Analysis**

Statement 1	Statement 2	Statement 3
Incorrect	Correct	Correct
<ul style="list-style-type: none"> Global Gender Gap Report is released annually by the World Economic Forum (WEF) since 2006. It measures gender parity in 146 countries and across four areas: economic participation and opportunity, educational attainment, health and survival and political empowerment. 	<ul style="list-style-type: none"> India was ranked at 127 out of 146 countries in terms of gender parity, an improvement of eight places from last year. India had closed 64.3% of the overall gender gap. However, it underlined that India had reached only 36.7 % parity on economic participation and opportunity. 	<ul style="list-style-type: none"> According to the report, India had attained parity in enrolment across all levels of education. On political empowerment, India has registered 25.3% parity, with women representing 15.1% of parliamentarians — the highest for the country since the inaugural report in 2006. The index ranked India's neighbours Pakistan at 142, Bangladesh at 59, China at 107, Nepal at 116, Sri Lanka at 115 and Bhutan at 103. Iceland is the most gender-equal country in the world for the 14th consecutive year and the only one to have closed more than 90% of its gender gap.

Context: India was ranked at 127 out of 146 countries in terms of gender parity — an improvement of eight places from last year, according to the recently published annual Gender Gap Report, 2023.

Q. 122) Consider the following statements about Asia Pacific Plant Protection Commission

- It is an intergovernmental organization that promotes cooperation among countries in the Asia-Pacific region to enhance plant health and plant protection.
- The Director-General of the Food and Agriculture Organization provides the secretariat to coordinate the work of the Commission.

Choose the correct statements:

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

Q. 122) Solution (c)**Statement Analysis**

Statement 1	Statement 2
Correct	Correct

- It is an intergovernmental organization that promotes cooperation among countries in the Asia-Pacific region to enhance plant health and plant protection.
- It was established in 1956 as a regional body approved by the Food and Agriculture Organization (FAO) of the United Nations.
- Member Countries: The commission consists of 25 member countries, including India.

Structure of the organization:

- The Commission consists of representatives of all member countries and elects amongst them a Chairperson who serves for a period of two years.
- The Director-General of the Food and Agriculture Organization appoints and provides the secretariat that coordinates, organizes and follows up the work of the Commission.
- The Commission, according to its provisions convenes at least once every two years and opens for participation to all member countries.

Context: The Asia Pacific Plant Protection Commission unanimously elected India as chair of the Standing Committee on Integrated Pest Management (IPM) for the biennium 2023-24 during the 32nd Session held in Bangkok.

Q. 123) Consider the following statements about Black Cocaine

1. It is a rare drug, which is typically white in colour but mixed with charcoal to give it black rubbery appearance.
2. Pure cocaine is recovered from the black cocaine by extraction using methylene chloride or acetone.

Choose the incorrect statements:

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

Q. 123) Solution (d)

Statement Analysis

Statement 1	Statement 2
Correct	Correct
<ul style="list-style-type: none"> • Black cocaine is rare drug, which is typically white in colour but it is the additional substance that makes it black in colour. • It is a designer drug wherein cocaine is mixed with charcoal and other chemicals to give it black rubbery appearance. • It cannot be even detected by sniffer dogs. 	<ul style="list-style-type: none"> • The pure cocaine base is then recovered from the mixture by extraction using common organic solvents such as methylene chloride or acetone. • South American countries where coca plants grow are major suppliers of cocaine to India. • Amongst narcotics, Cocaine is one of the most expensive ones and is primarily used by the upper classes of society.

Context: The Narcotics Control Bureau (NCB) has recently arrested a Bolivian woman for allegedly carrying black cocaine.

Q. 124) Consider the following statements BepiColombo Spacecraft

1. It is a joint mission between the European Space Agency (ESA) and the National Aeronautics and Space Administration (NASA)
2. It aims to study and understand the composition and geophysics of Mercury.

Choose the incorrect statements:

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

Q. 124) Solution (a)

Statement Analysis

Statement 1	Statement 2
Incorrect	Correct
<ul style="list-style-type: none"> • It is a joint mission between the European Space Agency (ESA) and the Japan Aerospace Exploration Agency (JAXA). • Launched on – 2018. • Launch Vehicle - Ariane 5. 	<ul style="list-style-type: none"> • Aim – It will study and understand the composition, geophysics, atmosphere, magnetosphere and history of Mercury, the least explored planet in the inner Solar System. <p>The BepiColombo mission is based on two scientific spacecraft and one transfer module:</p> <ul style="list-style-type: none"> • Mercury Planetary Orbiter (MPO) • Mercury Magnetospheric Orbiter (MMO) • Mercury Transfer Module (MTM) • It will chart the planet's mineralogy and elemental composition, determine whether the interior of the planet is molten or not, and investigate the extent and origin of Mercury's magnetic field.

Context: Recently, BepiColombo spacecraft flew close to Mercury to take pictures of the planet.

Q. 125) Beki River, recently seen in news is a tributary of which of the following river?

- a) Mahanadi River
- b) Narmada River
- c) Brahmaputra River
- d) Periyar River

Q. 125) Solution (c)

Option c
Correct
<ul style="list-style-type: none"> • The Beki river originates in Bhutan, and it is one of the right bank tributaries of the Brahmaputra river. • This river is also known as the Kurisu river in Bhutan. • A large portion of the Beki river flows in the state of Assam and ultimately mix with Bay of Bengal. • It flows through the Manas National Park.

- The river and its drainage channels flow through the plains of Assam for about 85 km and drain an area of 26,243 sq. km. approximately.
- Beki river is rich in bio-diversities. It is the home of a variety of food fishes' species, ornamental fishes' species, amphibians, reptiles, birds, insects etc.
- Discharging a huge amount of water every year, the river turns dangerous during monsoon season.

Context: The flood situation in Assam was recently worsened as nearly 1.20 lakh people in 20 districts have been affected by the deluge.