|  |  |
| --- | --- |
| Question | **Which of the following is/are correct with reference to the Secretary-General of Rajya Sabha?**1. He/she is appointed by the Chairman of Rajya Sabha.
2. He/she is the custodian of the records of the House.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 3 |
| Solution | * Both the houses of parliament comprises an office of Secretary-General.
* The Secretary-General is the administrative head of the Secretariat of respective houses.
* **Secretary-General of Rajya Sabha is appointed by the Chairman, Rajya Sabha**, and holds a rank

equivalent to the Cabinet Secretary, the highest civil servant of the Union Government.* Role of Secretary-General
* He assists the Presiding Officers in conducting the proceedings of the House by giving them advice
* and expert opinion.
* He does not participate in the debate except for reporting messages from the other house about Bills
* or any other matter.
* All notices under the rules are addressed to him.
* **He is the custodian of the records of the House.**
* He prepares full reports of the proceedings of the House and also issues the List of Business for the
* day.
* On behalf of the President of India, he/she summons members to attend session of Parliament
* The Secretary General remains in office till his/her retirement at the age of 60. He/she is answerable only

to the presiding officer, his action cannot be discussed or criticised in or outside the house.* **Hence both the statements are correct.**
 |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Which of the following statements are correct regarding the Ahom Kingdom?**1. The Ahom kingdom was the only kingdom which remained undefeated by the Mughals.
2. The Ahom kings depended upon forced labour called paiks.
3. The capture of wild elephants was declared a royal monopoly by the Ahom kings.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1, 2 and 3 |
| Option | 1 and 3 only |
| Answer | 2 |
| Solution | * The Ahoms migrated to the **Brahmaputra valley (Northeast India)** from present-day Myanmar in the

thirteenth century. They created a new state by suppressing the older political system of the bhuiyans(landlords). The Ahoms built a large state, and for this, they used firearms as early as the 1530s.* However, the Ahoms faced many invasions from the south-west. **In 1662, the Mughals under Mir**

**Jumla attacked the Ahom kingdom.** Despite their brave defence, the Ahoms were defeated. But directMughal control over the region could not last long. **Hence statement 1 is not correct.*** The Ahom state depended upon forced labour. **Those forced to work for the state were called paiks.** A

census of the population was taken. Each village had to send a number of *paiks* by rotation. People fromheavily populated areas were shifted to less populated places. Ahom clans were thus broken up. **Hence****statement 2 is correct.*** By the first half of the seventeenth century, the administration became quite centralised. Almost all adult

males served in the army during the war. At other times, they were engaged in building dams, irrigationsystems and other public works. The Ahoms also introduced new methods of rice cultivation. **The****capture of wild elephants was declared a royal monopoly by the Ahom kings. Hence statement 3 is****correct.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Which of the following is/are correct with reference to the C. Rajgopalachari Formula?**1. It recommended the Muslim majority areas to exercise the right to selfdetermination.
2. It wanted the Muslim League's to endorse the Congress demand for independence.
3. The formula received Gandhiji's support.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 3 only |
| Option | 1, 2 and 3 |
| Option | 1 and 3 only |
| Answer | 3 |
| Solution | * During the 1940s, several efforts were on to solve the ongoing constitutional crisis, basically due to Jinnah

wanting the Congress to accept his idea of Two-nation theory. In the course of time, some individuals alsotried to come up with constitutional proposals. C. Rajagopalachari, the veteran Congress leader, prepareda formula for Congress-League cooperation. **It was a tacit acceptance of the League's demand for****Pakistan. Gandhi supported the formula.** The main points in CR Plan were:* + **Muslim League to endorse Congress demand for independence.**
	+ League to cooperate with Congress in forming a provisional government at the centre.
	+ **After the end of the war, the entire population of Muslim majority areas in the North-West and North-East India to decide by a plebiscite, whether or not to form a separate sovereign state.**
	+ In case of acceptance of partition, agreement to be made jointly for safeguarding defence, commerce, communications, etc.
* **Hence all the statements are correct.**
 |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **In the context of the medieval history of South India, the terms Manigramam and Nanadesi referred to:** |
| Type | multiple\_choice |
| Option | Village headmen |
| Option | Sects of Bhakti saints |
| Option | Trade guilds |
| Option | Villages given in the form of gift |
| Answer | 3 |
| Solution | * There were many kinds of traders in Medieval India. These included the Banjaras. Several traders, especially horse traders, formed associations, with headmen who negotiated on their behalf with warriors who bought horses.
* Since traders had to pass through many kingdoms and forests, they usually travelled in caravans and formed guilds to protect their interests. There were several such guilds in south India from the eighth century onwards – the most famous being the Manigramam and Nanadesi. These guilds traded extensively both within the peninsula and with Southeast Asia and China. **Hence option (c) is the correct answer.**

There were also communities like the Chettiars and the Marwari Oswal who went on to become the principal trading groups of the country. Gujarati traders, including the communities of Hindu Baniyas and Muslim Bohras, traded extensively with the ports of the Red Sea, Persian Gulf, East Africa, Southeast Asia and China. They sold textiles and spices in these ports and, in exchange, brought gold and ivory from Africa; and spices, tin, Chinese blue pottery and silver from Southeast Asia and China. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **The first Global Stocktake synthesis report, 2023 has been released by** |
| Type | multiple\_choice |
| Option | The Intergovernmental Panel on Climate Change (IPCC) |
| Option | The United Nations Environment Programme (UNEP) |
| Option | The United Nations Framework Convention on Climate Change (UNFCCC). |
| Option | The Global Environment Facility (GEF). |
| Answer | 3 |
| Solution | * **The Global stocktake (GST):**
* The global stocktake (GST) aims to serve as a report card on the progress of countries under the 2015 Paris Agreement in achieving their climate action goals. While assessment reports by the Intergovernmental Panel on Climate Change (IPCC) put forth observations made by scientific experts GST summarises 252 hours of conversations between governments, civil society organisations, experts and the UN bodies. The GST, therefore, combines scientific observations with on-ground experiences.
* The **Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA)** under **UNFCCC has the overall responsibility to conduct the global stocktake**.
* **Global stocktake synthesis report -UNFCCC.**
	+ The first global stocktake technical synthesis report is released by the United Nations Framework Convention on Climate Change (UNFCCC). **Hence option (c) is correct.**
	+ The report warns that the world is **“not on track”** to meet the long-term goal of limiting global temperatures to 2 degrees Celsius.
	+ The **synthesis report ties into a larger exercise called the ‘global stocktake,**’ that is expected to take place once in five years.
	+ T**he report also acknowledged that improved Nationally Determined Contributions (NDC)** from countries with ambitious emissions reduction targets have led to near-universal climate action. However, it is clear that the progress is inadequate and the window to “course correct” is rapidly closing.

The synthesis report culminates the second phase of the GST process, summarising three technical discussions held between 2022 and 2023. Its findings are expected to provide a strong science-based foundation for the third and final “**politicalphase” of GST** coming up at the 28th Conference of Parties (COP28) to the UNFCCC in Dubai later this year. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Consider the following statements regarding Electromagnetic Ion Cyclotron (EMIC) Waves:**1. These waves are the discreet electromagnetic emissions observed in the Earth's magnetosphere.
2. These waves are generated in the equatorial latitudes.
3. These waves can resonate with charged particles causing them to move in a cyclical motion.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 and 3 only |
| Option | 1 and 2 only |
| Option | 1, 2 and 3 |
| Answer | 4 |
| Solution | * **Electromagnetic Ion Cyclotron Waves:**
	+ Scientists have identified Electromagnetic Ion Cyclotron (EMIC) waves, a form of plasma waves in the Indian Antarctic station, Maitri.
	+ The EMIC waves are the discreet electromagnetic emissions observed in the Earth's magnetosphere. Their signatures can be recorded in both spaces as well as ground-based magnetometers. **Hence, statement 1 is correct.**
	+ These waves are **generated in the equatorial latitudes** and propagate along magnetic field lines to their footprint in the high-latitude ionosphere. **Hence, statement 2 is correct.**
	+ These waves **can resonate with charged particles**, particularly ions, that are trapped in the magnetosphere, **causing them to move in a cyclical motion. Hence, statement 3 is correct.**
	+ These waves play an important role in the precipitation of **killer electrons** (electrons having speeds close to the speed of light, which form the radiation belt of planet Earth), which are hazardous to space-borne technology/instruments.
* **Magnetosphere**
	+ Magnetosphere is the cavity in which the Earth lies and stays protected from the wrath of the Sun.
	+ It is formed by the interaction between Earth's magnetic field and the solar wind, which is a continuous stream of charged particles, mainly electrons and protons, flowing from the Sun.
	+ Earth's magnetic field is generated by the motion of molten iron in its outer core.
* **Magnetometer**
	+ A magnetometer is a scientific instrument used to measure the strength and direction of magnetic fields.
	+ It can be used to study the Earth's magnetic field, as well as the magnetic fields of other celestial bodies, such as planets, moons, stars, and galaxies.

Magnetometers work based on the principles of electromagnetic induction or magnetoresistance. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Consider the following countries:**1. Iran
2. Iraq
3. Saudi Arabia
4. Jordan
5. United Arab Emirates

**Which of the countries given above share border with the Persian Gulf?** |
| Type | multiple\_choice |
| Option | 1, 3 and 5 only |
| Option | 1, 3, 4 and 5 only |
| Option | 2, 3 and 5 only |
| Option | 1, 2, 3 and 5 only |
| Answer | 4 |
| Solution | * Persian Gulf is bordered on the **north, northeast, and east by Iran**; on the **southeast and south by part of Oman** and by the **United Arab Emirate**s; on the **southwest and west by Qatar, Bahrain, and Saudi Arabia**; and on the **northwest by Kuwait and Iraq.**
* **Jordan doesn’t border with Persian Gulf**. **Hence option 4 is not correct.**
 |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **With reference to the Enhanced Collaborative Autonomous Rover System (ECARS), consider the following statements:**1. It is a multi-terrain manned ground vehicle for a wide range of military situations.
2. It is developed by the Defence Research and Development Organisation (DRDO).

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 4 |
| Solution | * The Enhanced Collaborative Autonomous Rover System (ECARS), a cutting-edge 4×4 **multi-terrain unmanned ground vehicle (UGV). The speed of the system ranges between 16 and 20 km per hour, with a payload capacity of 350 kg and towing payload capacity of 500 kg. Hence, statement 1 is not correct.**
* ECARS UGV is armed with an enhanced collision avoidance system and advanced mission planning capabilities, rendering it a dependable resource for a wide range of military situations.
* **It is developed by Pune’s Kalyani Strategic Systems Ltd, a fully-owned subsidiary of Bharat Forge. Hence, statement 2 is not correct.**

**A key feature of ECARS is its compatibility with various systems, including Remote Controlled Weapon Stations (RCWS), water jet machines** and capability of transporting heavy materials. This makes ECARS a key tool for border surveillance and more. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **With reference to the Snakes, consider the following statements:**1. All snakes are diurnal.
2. All snakes are cold-blooded and must regulate their body temperatures.
3. All snakes shed their skin because it does not grow with their body size.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 2 and 3 only |
| Option | 1 and 3 only |
| Option | 3 only |
| Option | 1, 2 and 3 |
| Answer | 1 |
| Solution | * **Snake:** There are more than 35,000 species of the snake around the world, of which only 600 are venomous. Of these 600, 330 species are found in India. The most commonly found dangerous snakes are the ones we call the big four — krait, Russel’s viper, saw-scaled viper and Indian-spectacled cobra.
* Snakes have some clear differences from other reptiles. They have no limbs, no moveable eyelids, and no ear openings. About 600 species are venomous, and only about 200—seven percent—are able to kill or significantly wound a human.
* Their upper and lower jaw separate to allow snakes to consume prey up to three times larger than the diameter of their head. Snakes eat their prey whole.
* **Most snakes are nocturnal. Hence, statement 1 is not correct.** Their tongue is used to smell their air.
* **Snakes are cold-blooded**, or ectotherms, and must sun themselves to regulate their body temperatures. **Hence, statement 2 is correct.**
* While most snakes lay eggs, some give live birth. Snakes shed their skin because it doesn't fit anymore or because it's old or worn out. When snakes grow, their skin does not, so they outgrow it. When this happens, they shed their outer layer of skin. Snakes can shed their skin as often as once a month, although it's usually only a handful of times a year at most. **Hence statement 3 is correct.**

There are more than 3,000 species of snakes on the planet and they’re found everywhere except in Antarctica, Iceland, Ireland, Greenland, and New Zealand. They live almost everywhere, in deserts, forests, oceans, streams, and lakes. Snakes cannot survive in places where the ground stays frozen year-round so there **are no snakes in Antarctica.** Radio telemetry has been used to study the movement patterns of snakes to tackle India‘s huge snakebite problem. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Which of the following are essential growth conditions required for Coffee cultivation?**1. Direct Sunlight is necessary for the Coffee plantation.
2. Coffee plant needs abundant rainfall.
3. Fertile soils rich in iron and potash are most suitable for its cultivation.
4. Coffee can not tolerate water stagnation.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 3 and 4 only |
| Option | 2, 3 and 4 only |
| Option | 1 and 4 only |
| Answer | 3 |
| Solution | * **Coffee is a tropical plantation crop.** Its seeds are roasted, ground and are used for preparing a beverage. There are three varieties of coffee i.e. **arabica, robusta and liberica.** India mostly grows superior quality coffee, arabica, which is in great demand in International market.
* Essential growth conditions required for the cultivation of coffee are as follows:
	+ Climate: Coffee is a **tropical plant** which is also grown in semi-tropical climate. The coffee tree requires heat, humidity and abundant rainfall.
	+ Temperature: Coffee requires an average temperature between 20°-27°C. Although it grows in day temperature over 32°C in the Arabian Peninsula. Growth is most rapid during hot rainy season and during cool dry season berries ripen and ready for picking. Bright sunshine and warm weather are necessary for the harvesting.
	+ Coffee **needs abundant rainfall,** i.e., 100 to 200 cm annually. The hill slopes which receive orthographic rainfall are thus best for coffee cultivation. **Hence statement 2 is correct.**
	+ Shade: **Direct sunlight is harmful for coffee plants**; therefore, these are planted under shade of taller trees such as bananas. In Brazil, leguminous plants are used which not only provide shade but also enrich soil with nitrogen. **Hence statement 1 is not correct.**
	+ **Topography:** Generally, coffee is grown on **slopes having height between 600 to 1,800 meters.** The suitability of slopes for coffee is because these are well-drained and also cooler. **Water stagnation is very harmful for coffee plants;** therefore, hill slopes are best suitable for it. **Hence statement 4 is correct.**
	+ **Soils:** The ideal soil is one with a good **sub-surface drainage.** The presence of humus, nitrogenous matter, potash, iron in the soil is an advantage. **Well-drained volcanic soils** are also suitable. **Hence statement 3 is correct.**

In **India**, **Coffee** is cultivated in the highlands of **Western Ghats** in Karnataka, Kerala and Tamil Nadu. Karnataka alone accounts for more than two-third of total production of coffee in the country. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **The 'State of the Rhino 2023' report was released recently. In this context, consider the following statements:**1. The 'State of the Rhino' report is released annualy by the World Wide Fund for Nature.
2. The greater one-horned rhinos, which are native to India are categorised as 'endangered' on the IUCN Red List.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 4 |
| Solution | * Every September, the **International Rhino Foundation (IRF)** publishes its signature report, **State of the Rhino**, which documents current population estimates and trends, where available, as well as key challenges and conservation developments for the five surviving rhino species in Africa and Asia. **Hence statement 1 is not correct.**
* There are five species of rhino namely **Black rhino, Greater one-horned rhino, Javan rhino, Sumatran rhino and White rhino.** Out of them, three rhino species are found in Asia namely Sumatran rhino, Javan rhino and Greater one-horned rhino (Indian rhino).
* Three species of rhino—black, Javan, and Sumatran—are critically endangered.

**Indian rhino is largest of all rhino species** and commonly found in India (Assam, West Bengal and Utter Pradesh), Nepal, Bhutan, and Pakistan. It is identified by a single black horn and a grey-brown hide with skin folds. It is **presently classified as 'vulnerable' on the International Union for Conservation of Nature (IUCN) Red List. Hence statement 2 is not correct.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **With reference to Co-operative Societies, consider the following statements:**1. The right to form co-operative societies is a fundamental right.
2. The Parliament is empowered to make laws regulating the multi-state cooperative societies.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 3 |
| Solution | * The 97th Constitutional Amendment Act of 2011 gave a constitutional status and protection to cooperative societies. In this context, it made the following three changes in the Constitution:
	+ It made the right to form co-operative societies a fundamental right (Article 19). **Hence, statement 1 is correct.**
	+ It included a new Directive Principle of State Policy on the promotion of cooperative societies (Article 43-B).
	+ It added a new Part IX-B in the Constitution which is entitled as “The Cooperative Societies” (Articles 243-ZH to 243-ZT).
* The new Part IX-B contains various provisions to ensure that the cooperative societies in the country function in a democratic, professional, autonomous and economically sound manner.
* **It empowers the Parliament in respect of multi-state cooperative societies** and the state legislatures in respect of other co-operative societies to make the appropriate laws regulating Cooperative Societies in India. **Hence, statement 2 is correct.**
	+ State Cooperative Societies Acts of individual states

Multi-State Cooperative Societies Act, 2002 for the multi-state Cooperative societies with Area of operation in more than one State. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **"The Act made the Legislative Business to be conducted in public instead of in secret and reports of proceedings were officially published. Standing orders were adopted to conduct and regulate proceedings. The Bills were referred to Select Committees before being passed by the Council. It gave the legislature for the first time the right to frame its own rules and procedure."****Which of the following acts is being described in the above-given passage?** |
| Type | multiple\_choice |
| Option | Pitt's India Act of 1784 |
| Option | Charter Act of 1833 |
| Option | Charter Act of 1853 |
| Option | Government of India Act of 1858 |
| Answer | 3 |
| Solution | * Under **the Charter Act of 1853**, discussions in the Council, when acting in its legislative capacity, became oral instead of in writing. Bills passed through the usual three stages and were referred to Select Committees.
* **The legislative business was conducted in public instead of in secret and reports of proceedings were officially published. Standing orders were adopted to conduct and regulate proceedings.**
* The new Council conceived its duties not to be confined only to legislation but also began to assume the character of a miniature representative assembly, assembled for the purpose of enquiry into and redress of grievances.
* **The Act of 1853 gave the legislature for the first time the right to frame its own rules and procedure.** Shri Prasanna Kumar Tagore was appointed to the post of Clerk of the Council and he went on to provide the Council with a parliamentary form of procedure and encouraged it to assert its independence as a separate organ of government.

The public was allowed to witness the proceedings of the Council and press reporting was permitted in 1856. Despite the progressive establishment of legislative practices and procedures, there was, however, no Indian participation in the Council. **Hence the correct answer is option (c)** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Consider the following statements about the office of the High Court in India:**1. The power to extend the jurisdiction of High court is vested with the Parliament.
2. The judges of a high court are appointed by the Governor of the respective states.
3. A High Court can settle dispute between two states.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1, 2 and 3 |
| Answer | 1 |
| Solution | * The **Parliament can extend** the jurisdiction of a high court to any union territory or exclude the jurisdiction of a high court from any union territory. **Hence statement 1 is correct.**
* The judges of a high court are **appointed by the President**.
* The chief justice is appointed by the President after consultation with the chief justice of India and the governor of the state concerned.
* For appointment of other judges, the chief justice of the concerned high court is also consulted.
* In case of a common high court for two or more states, the governors of all the states concerned are consulted by the president. **Hence statement 2 is not correct.**

When there is a dispute which arises **between the States of India** or between the State Government and the Union Government then it is the jurisdiction of **the Supreme Court** under **Article 131** of the Constitution that gives it the power to resolve these kinds of disputes. **Hence statement 3 is not correct**. |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Bhoramdeo Wildlife Sanctuary (BWS), which has been designated as the Tiger Reserve recently is located at** |
| Type | multiple\_choice |
| Option | Chattisgarh |
| Option | Madhya Pradesh |
| Option | Rajasthan |
| Option | Jharkhand |
| Answer | 1 |
| Solution | * Recently Chhattisgarh State Wildlife Board rejected National Tiger Conservation Authority's (NTCA) recommendation to assign Bhoramdeo Wildlife Sanctuary (BWS) the status of a Tiger Reserve. Hence option (a) is the correct answer.
* Challenging the governments decision a public interest litigation (PIL), demanding to designate the Bhoramdeo Wildlife Sanctuary (BWS) as a tiger reserve and the Chilpi Range as a buffer zone has been filed. But the Chhattisgarh high court has dismissed a public interest litigation (PIL).
* The court emphasized that the National Tiger Conservation Authority (NTCA) had only suggested measures for the potential declaration of BWS as a Tiger Reserve and had not issued a binding recommendation.
* There are to date 54 tiger Reserves and the last one to get the status was Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary which is located in the state of Chhattisgarh.
 |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Which of the following are the criteria for declaring a Biodiversity Heritage Sites (BHS)?**1. High endemism
2. Presence of rare and threatened species and Keystone species
3. High density of forest and tree cover.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1 and 3 only |
| Option | 1, 2 and 3 |
| Answer | 1 |
| Solution | * **“Biodiversity Heritage Sites” (BHS) are well-defined areas that are unique, ecologically fragile ecosystems - terrestrial, coastal and inland waters and, marine having rich biodiversity** comprising of any one or more of the following components: the richness of wild as well as domesticated species or intra-specific categories, high endemism, presence of rare and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species or their varieties, past pre-eminence of biological components represented by fossil beds and having significant cultural, ethical or aesthetic values and are important for the maintenance of cultural diversity, with or without a long history of human association with them. **Hence option 1 is correct**.
* Under **Section 37 of Biological Diversity Act, 2002 (BDA) the State Government** in consultation with local bodies may notify in the official gazette, areas of biodiversity importance as Biodiversity Heritage Sites (BHS). Under subsection (2) of Section 37, the State Government in consultation with the Central Government may frame rules for the management and conservation of BHS. **Hence option 2 is correct.**
* **Criteria:**
	+ **The richness of wild as well as domesticated species or intra-specific categories.**
	+ High endemism.
	+ **Presence of rare and threatened species, keystone species, species of evolutionary significance**
	+ Wild ancestors of domestic/cultivated species or their varieties.
	+ Past pre-eminence of biological components represented by fossil beds and having significant cultural, ethical or aesthetic values are important for the maintenance of cultural diversity with or without a long history of human association with them.

**High density and forest cover is not a criteria used to identify BHS. Hence option 3 is not correct.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Which of the following are the determinants of Minimum Support Price (MSP)?**1. Demand and supply
2. Amount of annual rainfall
3. International price trends
4. Implications of MSP on consumers

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1, 3 and 4 only |
| Option | 2 and 3 only |
| Option | 1 and 4 only |
| Option | 1, 2, 3 and 4 |
| Answer | 1 |
| Solution | * The minimum support price is an agricultural product price, set by the Government of India to purchase directly from the farmer. This rate is to safeguard the farmer to a minimum profit for the harvest if the open market has a lesser price than the cost incurred.
* Commission for Agricultural Costs & Prices (CACP) is mandated to recommend minimum support prices (MSPs) to incentivize the cultivators to adopt modern technology and raise productivity and overall grain production in line with the emerging demand patterns in the country
* While recommending price policy of various commodities under its mandate, the Commission keeps in mind the various Terms of Reference (ToR) given to CACP in 2009. Accordingly, it analyses
	+ **demand and supply**
	+ cost of production
	+ **price trends in the market, both domestic and international**
	+ inter-crop price parity
	+ terms of trade between agriculture and non-agriculture
	+ a minimum of 50 per cent as the margin over the cost of production
	+ **likely implications of MSP on consumers of that product.**
* CACP submits its recommendations to the government in the form of Price Policy Reports every year, separately for five groups of commodities namely Kharif crops, Rabi crops, Sugarcane, Raw Jute and Copra.
* As of now, CACP recommends MSPs of 23 commodities, which comprise 7 kinds of cereal (paddy, wheat, maize, sorghum, pearl millet, barley and ragi), 5 pulses (gram, tur, moong, urad, lentil), 7 oilseeds (groundnut, rapeseed-mustard, soybean, sesame, sunflower, safflower, nigerseed), and 4 commercial crops (copra, sugarcane, cotton and raw jute).

**Hence only options 1, 3 and 4 are correct.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Consider the following statements:**1. In a closed economy, savings and investment remain equal.
2. In an open economy, savings are always more than investments.

**Which of the statements given above is/are correct?** |
| Type | multiple\_choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 1 |
| Solution | * A closed economy refers to an economy that does not interact with other economies. Saving and investment are equal in a closed economy.
* Let's now consider how saving (S) and investment (I) are related to the international flows of goods and capital as measured by net exports and net capital outflow.
* Each unit of output sold in a closed economy is consumed, invested, or bought by the government. To see what this identity can tell us about financial markets, subtract C and G from both sides of this equation. We obtain, **Y - C - G = I. (Y = GDP and C = Consumption).**
* The left side of this equation **(Y - C - G)** is the total income in the economy that remains after paying for consumption and government purchases:
* This amount is called national saving, or just saving, and is denoted by S. Substituting S for Y - C - G, we can write the last equation as S = I.
* National saving is the income of the nation that is left after paying for current consumption and government purchases. National saving (S) equals Y - C - G.
* If we rearrange the equation to reflect this fact, we obtain, **Y - C - G = I + NX**
* **S = I + NX.**
* Because net exports (NX) also equal net capital outflow (NCO), we can write this equation as **S = I + NCO**
* **Saving = Domestic Investment + Net capital outflow**
* This equation shows that a nation's saving must equal its domestic investment plus its net capital outflow. **In a closed economy, net capital outflow is zero (NCO = 0), so saving equals investment (S = I).**
* By contrast, an open economy has two uses for its saving: domestic investment and net capital outflow.
* When a nation’s saving exceeds its domestic investment, its net capital outflow is positive, indicating that the nation is using some of its saving to buy assets abroad. When a nation’s domestic investment exceeds its saving, its net capital outflow is negative, indicating that foreigners are financing some of this investment by purchasing domestic assets. **Therefore, savings are not always more than investments.**
 |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Bandi Jeevan' that served as a textbook for the revolutionary movement in India was written by** |
| Type | multiple\_choice |
| Option | Ramprasad Bismil |
| Option | Sachindranath Sanyal |
| Option | Jogesh Chatterjea |
| Option | Surya Sen |
| Answer | 2 |
| Solution | * Determined to fight the oppressive British rule, **Sachindranath Sanyal** (**or Sachindra Nath)** started participating in revolutionary activities from a young age. **In 1913, when he was just 20 years old, he** **opened a chapter of the revolutionary organization ‘Anushlian Samiti’ in Benaras.** He used to organize fitness activities and motivate youth to fight for the motherland.
* **In 1915, Sachindra Nath and Rash Bihari Bose were involved the Ghadar Party’s armed rebellion plan to overthrow British rule.** Sanyal trained the youth in revolutionary tactics and prepared them forthe uprising. But to their misfortune, their plan was leaked to the British and the efforts of the Ghadar party to overthrow the British government went in vain.
* This incident alerted the British and led to the arrest of many Ghadarites and revolutionaries, including Sachindra. **Sachindra was sentenced to life and deported to the Cellular Jail of Andaman for his involvement in the Benaras Conspiracy**; his house was also confiscated by the British. **Here he wrote the famous book “Bandi Jeevan” (A Life of Captivity). This book is by revered by freedom fighters like Bhagat Singh.** In 1920 in the wake of the victory of Britain and its allies in the First World War, the British had freed many prisoners, among them Sachindra Nath.
* The harrowing time spent at the Cellular Jail did not break the spirit of Sachindra Nath and he continued with his revolutionary ways. **He co-founded the Hindustan Republican Association (HRA)** which was later renamed to Hindustan Socialist Republican Association (HSRA) and mentored great freedom fighters such as Bhagat Singh, Sukhdev, Bhagwati Chandra Vohra among others.
* Sachindra Nath was arrested again in 1924 for what was considered as a provocative speech against the government. He was sent for the second time to the Cellular Jail for his involvement in the Kakori raid.

He had contracted Tuberculosis and was released from jail due to his deteriorating health condition in 1937. However, this was not the end of his jail confinement and Sachindra continued to participate in the freedom struggle. He was again imprisoned in Rajasthan in 1939 and in Uttar Pradesh in 1942. He was later moved to Gorakhpur jail where he succumbed to TB and passed away on February 6, 1943. **Hence option (b) is the correct answer.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **Consider the following statements:**1. Light waves are longitudinal waves.
2. Photon energy of visible light is lesser than the infrared radiation.
3. Sun appears red during sunset and sunrise due to scattering of light.
4. The shorter the wavelength of the light, the more it is refracted.

**Which of the statements given above are correct?** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 3 and 4 only |
| Option | 1 and 3 only |
| Option | 2, 3 and 4 only |
| Answer | 2 |
| Solution | * **Visible light** is a form of **electromagnetic (EM) radiation**, as are radio waves, infrared radiation, ultraviolet radiation, X-rays and microwaves. Generally, visible light is defined as the wavelengths that are visible to most human eyes. Visible light falls in the range of the EM spectrum **between infrared (IR) and ultraviolet (UV).** It has **frequencies of about 4 × 10^14 to 8 × 10^14 hertz (Hz)** and wavelengths of about 740 nanometers (nm) to 380 nm.
* Waves are classified into two groups: transverse or longitudinal. In a transverse wave, the particles are displaced perpendicular to the direction the wave travels. In a **longitudinal wave** the particles are displaced **parallel to the direction** the wave travels (e.g.. Sound waves). **Light waves are transverse** i.e., the vibrating electric vector associated with each wave is perpendicular to the direction of propagation. **Hence statement 1 is not correct.**
* **Photon energy** is the energy carried by a single photon. The amount of energy is directly proportional to the photon's electromagnetic frequency and thus, equivalently, is inversely proportional to the wavelength. **The higher the photon's frequency, the higher its energy.** Since the **frequency of visible light is more than infrared radiation,** photon energy of visible light is more than infrared energy. **Hence statement 2 is not correct.**
* During sunrise and sunset, the rays have to travel a larger part of the atmosphere because they are very close to the horizon. Therefore, light other than red is mostly scattered away. Most of the **red light**, which is the least **scattered**, enters our eyes. Hence, the sun and the sky appear red **due to scattering of sun rays**. **Hence statement 3 is correct.**
* When light passes from a more dense to a less dense substance, (for example passing from water into air), the light is **refracted** (or bent) away from the normal. The normal is a line perpendicular (forming a 90 degree angle) to the boundary between the two substances. The bending occurs because light travels more slowly in a denser medium. The amount of refraction increases as the wavelength of light decreases. **Shorter wavelengths of light** (violet and blue) are slowed more and consequently **experience more bending** than do the longer wavelengths (orange and red). **Hence statement 4 is correct.**

**Hence option (b) is the correct answer.** |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

|  |  |
| --- | --- |
| Question | **The Central Information Commission (CIC) is required to receive and inquire into a complaint from a person in which of the following cases?**1. If a person has been refused information that was requested.
2. If a person has not received response to his information request within the specified time limits.
3. If a person thinks information given is incomplete, misleading or false.

**Select the correct answer using the code given below.** |
| Type | multiple\_choice |
| Option | 1 and 2 only |
| Option | 1 and 3 only |
| Option | 2 and 3 only |
| Option | 1, 2 and 3 |
| Answer | 4 |
| Solution | * **Central Information Commission:** It is a statutory body constituted under Right to Information Act, 2005.It consists of a Chief Information Commissioner and not more than ten Information Commissioners. Department of Personnel and Training (DoPT) under Ministry of Personnel, Public Grievances & Pensions is the nodal ministry for the Central Information Commission.
* It is the duty of the Commission to receive and inquire into a complaint from any person:
* who has not been able to submit an information request because of non-appointment of a Public Information Officer;
	+ **who has been refused information that was requested;**
	+ **who has not received response to his information request within the specified time limits;**
	+ who thinks the fees charged are unreasonable;
	+ **who thinks information given is incomplete, misleading or false; and**
	+ any other matter relating to obtaining information.

**Hence, all the statements are correct**. |