

**Q. 1) 'Fire Ready Formula' to tackle wild fires has been released by which organisation?**

- a) United Nations Environment Programme (UNEP)
- b) World Meteorological Organisation (WMO)
- c) Food and Agricultural Organisation (FAO)
- d) GreenWatch

Q.1) Solution: (a)

**Explanation:**

- Fire Ready Formula envisages that 34 per cent can be spent on the response while 66 per cent on planning, prevention, preparedness, and recovery. The UNEP report also projected that the number of wildfires is likely to increase by up to 14 per cent by 2030.
- It is projected to spike by 33 per cent by 2050. It would rise by 52 per cent by 2100.
- The direct responses to wildfires received over half of related expenditures, while planning and prevention received just 0.2 per cent of the total budget for wildfires.
- Even the Arctic region, previously all but immune, faces rising wildfire risk. Fire Ready Formula is released by the United Nations Environment Programme jointly with the non-profit GRID-Arendal.
- It will facilitate international cooperation and help all wildfire-prone countries build capacity for both domestic applications and international assistance.

**Q. 2) Consider the following statements about Bird Ringing**

1. It is the attachment of a small, uniquely numbered metal or plastic tag to the leg or wing of a wild bird to enable its identification.
2. It is a useful research instrument used to collect information on the survival, productivity, and movements of migratory birds.
3. It was first started in Denmark and Bihar is the only Indian state to have a bird ringing station.

Choose the correct code:

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

d) 1, 2 and 3

Q.2) Solution: (a)

**Explanation:**

- Bird ringing also known as bird banding is the attachment of a small, uniquely numbered metal or plastic tag to the leg or wing of a wild bird to enable its identification. **Hence statement 1 is correct.**
- Bird ringing is a useful research instrument used to collect information on the survival, productivity, and movements of migratory birds, helping us to keep an eye on bird populations and to understand why they are changing. **Hence statement 2 is correct.**
- The primary purpose of bird ringing was to learn the secrets of bird migration. Bird ringing for scientific purposes first began in 1889 in Denmark, when Hans Christian Cornelius Mortensen discharged starlings (Oscine Bird) that were fitted with metal rings etched with ordered numbers.
- In a very short period of time, ringing helped to keep track of the complicated migration routes of many migrant bird species as early as 1931.
- Bihar is all set to become India's first state in the north to get a "bird ringing station" for observation, monitoring, and research on migratory birds.
- It is overall the fourth state of India after Tamil Nadu, Rajasthan, and Orissa to have a bird ringing station. **Hence statement 3 is incorrect.**

**Q. 3) Consider the following statements about the International Centre for Integrated Mountain Development (ICIMOD)**

1. It is a specialised agency of the United Nations Environment Programme.
2. Bhutan, China, India, and Myanmar are members of it.
3. It aims to assist mountain people to understand the impacts of climate change and globalization.

Choose the correct code:

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

d) 1, 2 and 3

Q.3) Solution: (b)

**Explanation:**

- The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge-sharing centre. **Hence statement 1 is incorrect.**
- It has eight regional member countries of the Hindu Kush Himalaya –
- Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and is based in Kathmandu, Nepal. **Hence statement 2 is correct.**
- Globalization and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people.
- ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities while addressing upstream-downstream issues. **Hence statement 3 is correct.**

**Q. 4) Consider the following statements about the Major Economies Forum on Energy and Climate(MEF)**

1. It facilitates dialogue among the major developed countries to advance efforts against climate change.
2. It focuses on accelerating hydrofluorocarbon (HFC) phasedown under Kigali Amendment.
3. India is not a member of this forum.

Choose the correct code:

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

Q.4) Solution: (c)

**Explanation:**

- The Major Economies Forum on Energy and Climate(MEF) aims to facilitate candid dialogue among major emitting countries, both developed and developing, to garner the political leadership needed to advance efforts against climate change. **Hence statement 1 is incorrect.**
- The MEF 2022 meeting's purpose was to galvanize actions (both developed and developing countries) to strengthen energy security and tackle the climate crisis thereby building momentum for COP27.
- It focuses on achieving International Energy Agency's (IEA's) "**Credible Pathways to 1.5°C**", through Decarbonizing Energy; Reducing deforestation to net zero; Launching a Methane Finance Sprint to cut methane emissions; Accelerating hydrofluorocarbon (HFC) phasedown under Kigali Amendment; Accelerate CCUS technologies through a COP 28 **Carbon Management Challenge. Hence statement 2 is correct.**
- It was launched in 2009 by United States President Barack Obama.
- The meeting was attended by countries namely: Australia, Canada, China, Egypt, the European Commission, France, Germany, India, Saudi Arabia, Turkey, and the United Arab Emirates among others. **Hence statement 3 is incorrect.**

**Q. 5) Consider the following statements**

1. The Green Fins Hub is the first-ever global marine tourism industry platform.
2. Green Fins is a proven conservation management approach implemented by The Reef-World Foundation and the UNEP.

Choose the correct code:

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

Q.5) Solution: (c)

**Explanation:**

- The Green Fins Hub is the first-ever global marine tourism industry platform.

- It would give sustainable marine tourism a 'major boost'.
- It is expected to scale up to reach a potential 30,000 operators worldwide from about 700 operators across 14 countries.
- It is intended to catalyse a seismic shift towards sustainability in the marine tourism sector through Green Fins membership. **Hence statement 1 is correct.**
- Green Fins is a proven conservation management approach implemented internationally by The Reef-World Foundation and the UNEP which leads to a measurable reduction in the negative environmental impacts associated with marine tourism.
- Originally established in Thailand in 2004, the Green Fins approach is a tool for supporting the adoption and implementation of best practices in the diving and snorkeling tourism industry.
- It aims to protect coral reefs through environment-friendly guidelines promoting sustainable diving and snorkelling.
- It provides the only internationally recognised environmental standards for marine tourism and its robust assessment system measures compliance. **Hence statement 2 is correct.**

**Q. 6) Consider the following statements about Popa Langur**

1. It is also called Ghostly Monkey.
2. It is listed as vulnerable on the IUCN Red List.

Choose the correct code:

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

Q.6) Solution: (a)

**Explanation:**

- **Popa Langur** was the only new mammal reported among the 224 new species listed in the WWF's latest update on the greater Mekong region.
- It is called the Popa langur, for it lives on the steep hillsides of the extinct Mt. Popa volcano in Myanmar.

- It is also called a Ghostly Monkey, as it has ghostly white circles around its eyes. **Hence statement 1 is correct.**
- The monkey is a candidate to be listed as a **critically endangered** species on the Red List of the International Union for the Conservation of Nature since only 200-250 are thought to survive in the wild. **Hence statement 2 is incorrect.**

**Q. 7) Consider the following statements about the Ambition on Melting Ice on Sea-level Rise and Mountain Water Resources Group**

1. It aims to bring special attention to the role of ozone in global sea-level rise.
2. Chile, Iceland, and Peru are the founding members of the group.

Choose the correct code:

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

Q.7) Solution: (b)

**Explanation:**

- At COP 27, a broad coalition of 18 governments — led by the two polar and mountain nations of Chile and Iceland — joined together to create a new high-level group 'Ambition on Melting Ice(AMI) on Sea-level Rise and Mountain Water Resources'.
- The Ambition on Melting Ice on Sea-level Rise and Mountain Water Resources Group aims to bring special attention to the role of cryosphere loss in global sea-level rise.
- The term cryosphere derives from the Greek word kryo for cold and encompasses all the parts of the Earth system where water is in solid form, including ice sheets, ice shelves, glaciers, snow cover, permafrost (frozen ground), sea ice, and river and lake ice.
- The cryosphere exerts an important influence on Earth's climate, owing to its high surface reflectivity (albedo). This property gives it the ability to reflect a large fraction of solar radiation into space and influences how much solar energy is absorbed by land and oceans. **Hence statement 1 is incorrect.**

- The group comprises 18 founding governments: Chile (co-chair), Iceland (co-chair), Peru, Czech Republic, Nepal, Finland, Senegal, Kyrgyz Republic, Samoa, Georgia, Switzerland, New Zealand, Monaco, Vanuatu, Sweden, Tanzania, Liberia, Norway, and Mexico. **Hence statement 2 is correct.**

**Q. 8) Consider the following statements about Blue Duke**

1. It is the state butterfly of Sikkim.
2. It is protected under Schedule I of the Wildlife Protection Act of 1972.

Choose the correct code:

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

Q.8) Solution: (a)

**Explanation:**

- Blue Duke is the state butterfly of Sikkim.
- It is a native butterfly species of Sikkim.
- It is also called Bassarona Durga.
- It was first discovered in the State in 1858.
- It represents Sikkim with its two unique colours:
- Blue represents the sky.
- White depicting snow-clad mountains of the Himalayas.
- It is found at an altitude below 1,500 metres in the Himalayas and in various districts of West Sikkim. **Hence statement 1 is correct.**
- It is protected under **Schedule II of the Wildlife Protection Act** of 1972. **Hence statement 2 is incorrect.**

**Q. 9) Consider the following**

Sacred Groves	State
1. Orans	Bihar
2. Sarnas	Rajasthan
3. Kyntangs	Meghalaya
4. Deorais	Maharashtra

How many given pairs are correctly matched?

- One pair
- Two pairs
- Three pairs
- Four pairs

Q.9) Solution: (b)

**Explanation:**

- Sacred groves refer to a piece of natural vegetation that is protected by a certain community due to religious reasons.
- The area is usually dedicated to a local deity. As a result, local communities tend to take responsibility to protect and nurture the area.

Sacred Groves	State
1. Orans	Rajasthan
2. <b>Sarnas</b>	Bihar
3. <b>Kyntangs</b>	Meghalaya
4. Deorais	Maharashtra

**Hence option b is correct.**



**Q. 10) Consider the following statements about Red Panda**

1. It is found in the forests of India, Nepal, and China.
2. It is listed as endangered on the IUCN Red List.
3. It is the state animal of Sikkim.

Choose the correct code:

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

Q.10) Solution: (d)

**Explanation:**

- Red Panda is found in the forests of **India, Nepal, Bhutan, Myanmar, and China**.
- **They** are shy, solitary, and arboreal animals and are considered an indicator species for ecological change. **Hence statement 1 is correct.**
- It is listed as endangered on the IUCN Red List.
- It is protected under Schedule I of the Wildlife Protection Act of 1972 and Appendix I of the CITES. **Hence statement 2 is correct.**
- It is the state animal of **Sikkim**. **Hence statement 3 is correct.**
- There are only two different panda species in the world, the Giant Pandas and the Red Pandas.
- India is home to both the (sub) species:
  - Himalayan red panda (*Ailurus fulgens*)
  - Chinese red panda (*Ailurus styani*)
- Siang River in Arunachal Pradesh splits the two phylogenetic species.
- Giant Pandas are listed as vulnerable on the IUCN Red List and Appendix I of the CITES.

**Q. 11) Consider the following statements about the World Wildlife Conference**

1. It is the Conference of the Parties (CoP19) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
2. It included both sea cucumbers **AND SHISHAM** in Appendix II of the Convention.

Choose the correct code:

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

Q.11) Solution: (c)

**Explanation:**

- **The World Wildlife Conference** is the **Conference of the Parties (CoP19)** to the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**.
- CITES is an international agreement between governments — 184 at present — to ensure that international trade in wild animals and plants does not threaten the survival of the species.
- The convention entered into force in 1975 and India became the 25th party — a state that voluntarily agrees to be bound by the Convention — in 1976.
- States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties.
- Although CITES is legally binding on the Parties, they have to implement the Convention – it does not take the place of national laws. **Hence statement 1 is correct.**
- It included both **sea cucumbers AND SHISHAM** in **Appendix II** of the Convention. **Hence statement 2 is correct.**

**Q. 12) Consider the following**

Geo-heritage Sites	State
1. Eddy Markings	Rajasthan
2. Lonar Lake	Maharashtra
3. Erra Matti Dibbalu	Karnataka
4. Akal Fossil Wood Park	Gujarat

How many pairs are correctly matched?

- a) One pair
- b) Two pairs
- c) Three pairs
- d) Four pairs

Q.12) Solution: (a)

**Explanation:**

- Geo-heritage refers to the geological features which are inherently or culturally significant offering insight into earth's evolution or history to earth science or that can be utilized for education.
- The Geological Survey of India (GSI) is the parent body that is making efforts towards the identification and protection of geo-heritage sites/national geological monuments in the country.

Geo Heritage Sites	State
Laterite near Angadipuram PWD rest house premises, Malappuram Dist. Varkala Cliff Section, Thiruvananthapuram Dist.	Kerala
Fossil wood near Tiruvakkarai, South Arcot Dist. National fossil wood park, Sattanur, Tiruchirapalli Dist. Charnockite, St. Thomas Mount, Madras. Badlands of Karai Formation with Cretaceous Fossils along Karai – Kulakkalnattam Section, Perambalur District.	Tamil Nadu
<b>Lonar Lake</b> , Buldana Dist.	Maharashtra
Volcanogenic bedded Barytes, Mangampeta, Cuddapah Dist.	Andhra Pradesh

<p>Eparchaean Unconformity, Chittoor Dist.</p> <p>Natural Geological Arch, Tirumala Hills, Chittoor Dist.</p> <p><b>Erra Matti Dibbalu</b>- the dissected and stabilized coastal red sediment mounds located between Vishakhapatnam and Bhimunipatnam.</p>	
<p>Sedimentary Structures – <b>Eddy Markings</b>, Kadan Dam, Panch Mahals Dist.</p>	Gujarat
<p>Sendra Granite, Pali Dist.</p> <p>Barr Conglomerate, Pali Dist.</p> <p>Stromatolite Fossil Park, Jharmarkotra Rock Phosphate deposit, Udaipur Dist.</p> <p>Gossan in Rajpura-Dariba Mineralised belt, Udaipur Dist.</p> <p>Stromatolite Park near Bhojunda, Chittaurgarh Dist.</p> <p><b>Akal Fossil Wood Park</b>, Jaisalmer Dist.</p> <p>Kishangarh Nepheline Syenite, Ajmer Dist.</p> <p>Welded Tuff, Jodhpur Dist.</p> <p>Jodhpur Group – Malani Igneous Suite Contact, Jodhpur Dist.</p> <p>Great Boundary Fault at Satur, Bundi Dist.</p>	Rajasthan
<p>Lower Permian Marine bed at Manendragarh, Surguja Dist.</p>	Chhattisgarh
<p>Siwalik Fossil Park, Saketi, Sirmur Dist.</p>	Himachal Pradesh
<p>Columnar Lava, St Mary Island Udupi Dist.</p>	Karnataka

Pillow lavas near Mardihalli, Chitradurga Dist. Peninsular Gneiss, Lalbagh, Bangalore Pyroclastics & Pillow Lavas, Kolar Gold Fields, Kolar Dist.	
Stromatolite bearing Dolomite / Limestone of Buxa Formation at Mamley, near Namchi, South district.	Sikkim
Plant Fossil bearing Inter-trappean beds of Rajmahal Formation, upper Gondwana sequence around Mandro, Sahibganj dist.	Jharkhand
Nagahill Ophiolite Site near Pungro	Nagaland
Pillow Lava in iron ore belt at Nomira, Keonjhar dist.	Odisha

Hence option a is correct.

**Q. 13) Consider the following statements about Biofilms**

1. They can exhibit antibiotic resistance.
2. They can form on medical implants within human tissues.
3. They can form on food and food processing surfaces.

Choose the correct code:

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

Q.13) Solution: (d)

**Explanation:**

- A biofilm is an assemblage of microbial cells that is irreversibly associated (not removed by gentle rinsing) with a surface and enclosed in a matrix of primarily polysaccharide material.
- Microorganisms that form biofilms include bacteria, fungi, and protists.
- A biofilm is a structured consortium of bacteria embedded in a self-produced polymer matrix consisting of **polysaccharides, proteins, and DNA**.
- Bacterial biofilms show **increased tolerance to antibiotics and disinfectant chemicals** as well as resisting phagocytosis and other components of the body's defence system. Thus they cause chronic infections. **Hence statement 1 is correct.**
- Biofilms are ubiquitous and they form on virtually all surfaces immersed in a natural aqueous environment, e.g., water pipes, living tissue, tooth surface, **implanted medical devices**, dental implants, etc. **Hence statement 2 is correct.**
- Diverse microorganisms can grow on food matrixes and along food industry infrastructures. Thus biofilm can form on food and food processing surfaces.
- For example **Escherichia coli, Salmonella enterica**, etc. Salmonella enterica contaminates a food pipeline biofilm and may induce massive outbreaks and even death in children and the elderly. **Hence statement 3 is correct.**

**Q. 14) The Blue Transformation Roadmap is released by the**

- a) World Meteorological Organization
- b) United Nations Environment Programme
- c) International Maritime Organization
- d) Food and Agriculture Organization

Q.14) Solution: (d)

**Explanation:**

- Blue Transformation is a targeted effort by which agencies, countries, and dependent communities, use existing and emerging knowledge, tools, and practices to secure and sustainably maximize the contribution of aquatic (both marine and inland) food systems to food security, nutrition, and affordable healthy diets for all.
- It builds on existing successes while providing a framework to overcome sustainability challenges.

- Blue Transformation acknowledges that aquatic food systems significantly influence human, animal, and ecosystem health, including biodiversity, land and water use, climate, as well as other aquatic and land-based economic sectors.
- As such, their transformation requires a holistic and adaptive ecosystem approach, aimed at securing socially, environmentally, and economically sustainable value chains that help secure livelihoods, foster an equitable distribution of benefits and support adequate use and conservation of biodiversity and ecosystems.
- The Blue Transformation Roadmap is released by the Food and Agriculture Organization. **Hence option d is correct.**

**Q. 15) Consider the following statements about the Mangrove Alliance for Climate (MAC)**

1. It was launched during the COP 26 of the United Nations Framework Convention on Climate Change.
2. It includes UAE, Indonesia, India, Sri Lanka, Australia, Japan, and Spain.

Choose the correct code:

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

Q.15) Solution: (b)

**Explanation:**

- The Mangrove Alliance for Climate (MAC) seeks to **educate and spread awareness worldwide on the role of mangroves in curbing global warming** and its potential as a solution for climate change.
- However, the **intergovernmental alliance works on a voluntary basis** which means that there are no real checks and balances to hold members accountable.
- Instead, the parties will decide their own commitments and deadlines regarding planting and restoring mangroves.

- The members will also share expertise and support each other in researching, managing, and protecting coastal areas.
- It was launched during the COP 27 of the United Nations Framework Convention on Climate Change in Sharm El Sheikh, Egypt by **the UAE and Indonesia. Hence statement 1 is incorrect.**
- It includes **UAE, Indonesia, India, Sri Lanka, Australia, Japan, and Spain. Hence statement 2 is correct.**

**Q. 16) Consider the following statements about Dalbergia sissoo**

1. It is a hardy, deciduous rosewood tree native to the Indian subcontinent only.
2. It is used as firewood, timber, poles, fodder, erosion control, and as a windbreak.
3. It is included in Appendix II of the CITES Convention.

Choose the correct code:

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

Q.16) Solution: (b)

**Explanation:**

- Dalbergia sissoo is commonly known as North Indian Rosewood or Shisham. It is a fast-growing, hardy, deciduous rosewood tree **native to the Indian subcontinent and southern Iran.**
- It is native to the foothills of the Himalayas. It is primarily found growing along river banks. **Hence statement 1 is incorrect.**
- It is used as firewood, timber, poles, posts, tool handles, fodder, erosion control, and as a windbreak.
- Oil is extracted from the seed and tannin is from the bark. **Hence statement 2 is correct.**
- Shisham (Dalbergia sissoo) is included in Appendix II of the convention, thereby requiring countries to follow CITES regulations for the trade of the species.
- As of now every consignment of weight above 10 kg requires a CITES permit. **Hence statement 3 is correct.**



**Q. 17) Consider the following statements about the Global Plastics Outlook**

1. It is published by the Organization for Economic Cooperation and Development (OECD).
2. It stated that the amount of plastic waste produced globally is on track to almost triple by 2030.

Choose the correct code:

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

Q.17) Solution: (a)

**Explanation:**

- Global Plastics Outlook: Economic Drivers, Environmental Impacts, and Policy Options is a report published by the Organization for Economic Cooperation and Development (OECD). **Hence statement 1 is correct.**
- Its major highlights:
- The **amount of plastic waste produced globally is on track to almost triple by 2060**, with around half ending up in landfill and less than a fifth recycled. **Hence statement 2 is incorrect.**
- The report says that without radical action to curb demand, increase product lifespans and improve waste management and recyclability, plastic pollution will rise in tandem with an almost threefold increase in plastics use driven by rising populations and incomes.
- The report estimates that almost two-thirds of plastic waste in 2060 will be from short-lived items such as packaging, low-cost products, and textiles.
- Growth will be fastest in developing and emerging countries in Africa and Asia, although OECD countries will still produce much more plastic waste per person (238 kg per year on average) in 2060 than non-OECD countries (77 kg).

**Q. 18) Consider the following statements about Fusobacterium**

1. It is a genus of anaerobic, elongated, gram-negative, non-spore-forming bacteria.
2. It plays a vital role in oral cancer and affects the patient's response to chemotherapy.

Choose the correct code:

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

Q.18) Solution: (c)

**Explanation:**

- Fusobacterium species is a genus of anaerobic, elongated, Gram-negative, non-sporeforming bacteria, similar to Bacteroides.
- They are common obligately anaerobic bacteria of the oral cavity that may act as a bridge between early and late colonizing bacteria in dental plaque and have a role in oral and extra-oral infections.
- There are multiple species of Fusobacterium, but the one most associated with human disease is F. Necrophorum.
- F. Necrophorum is a cause of periodontal disease, tonsillitis, peritonsillar abscess, and thrombophlebitis of the jugular vein (Lemierre syndrome). **Hence statement 1 is correct.**
- Fusobacterium nucleatum is known to play a vital role in colorectal cancer, wherein its presence affects the spread of the disease and the patient's response to chemotherapy. However, a similar role of Fusobacterium in oral cancer was not known earlier.
- The presence of the bacteria was found in Indian and Caucasian oral cancer patients, with a much higher incidence among the Indian patients.
- Moreover, oral cancer patients positive for Fusobacterium were found to be negative for Human Papillomavirus (HPV) infection, suggesting they are present in a mutually exclusive way. **Hence statement 2 is correct.**

**Q. 19) Consider the following statements about the Green-Ag project**

1. It seeks to integrate biodiversity, climate change, and sustainable land management into Indian agriculture.
2. It is funded by the Department of Agriculture, Cooperation, and Farmers' Welfare (DAC&FW).

Choose the correct code:

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

Q.19) Solution: (a)

**Explanation:**

- **The Green-Ag project seeks to integrate biodiversity, climate change, and sustainable land management into Indian agriculture.**
- The project primarily aims to transform agricultural practices while ensuring the conservation of biodiversity and forest landscapes.
- Organic farming and agrobiodiversity conservation are among a portfolio of nature-based solutions proposed in the Green-Ag project.
- The Green-Ag project is looking to build a multi-sectoral approach to develop synergy between agriculture and allied areas with forest and environment, at the national, state, and district level. **Hence statement 1 is correct.**
- It is **funded by the Global Environment Facility**, while **the Department of Agriculture, Cooperation, and Farmers' Welfare (DAC&FW) is the national executing agency.**
- **Other key players involved in its implementation** are the **Food and Agriculture Organization (FAO)** and the Union Ministry of Environment, Forest and Climate Change (MoEF&CC). **Hence statement 2 is incorrect.**

**Q. 20) Consider the following statements about the Air Quality Database 2022**

1. It is released by the World Health Organisation.
2. It includes measurements of PM10, PM2.5, and nitrogen dioxide.

Choose the correct code:

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

Q.20) Solution: (c)

**Explanation:**

- The **World Health Organisation (WHO)** has released **Air Quality Database 2022**, which shows that Almost the entire global population (99 %) breathes air **that exceeds WHO's air quality limits. Hence statement 1 is correct.**
- The WHO for the first time has taken ground measurements of annual mean concentrations of nitrogen dioxide (NO<sub>2</sub>).
- It also includes measurements of Particulate Matter with diameters equal to or smaller than 10 µm (PM<sub>10</sub>) or 2.5 µm (PM<sub>2.5</sub>). **Hence statement 2 is correct.**
- The findings have prompted WHO to highlight the importance of curbing fossil fuel use and taking other tangible steps to reduce air pollution levels.

**Q.21) Consider the following statements**

1. The Constitution of India has laid down the technical criterion for a party to be recognised as a national/state party.
2. A political party would be considered a national party if it has won at least 2% of the total seats in the Lok Sabha from not less than two states.
3. A recognized national party gets broadcast/telecast facilities over Akashvani/Doordarshan during general elections.

Choose the correct statements:

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

Q.21) Solution (c)

**Explanation:**

- The ECI has laid down the technical criterion for a party to be recognised as a national/state party in the Election Symbols (Reservation and Allotment) Order 1968, as amended from time to time. A party may gain or lose national/state party status from time to time. **Hence statement 1 is not correct.**
- A political party would be considered (if it satisfies any of the below conditions) a national party if: it is 'recognised' in four or more states as a state party; or if its candidates polled at least 6% of total valid votes in any four or more states in the last Lok Sabha or Assembly elections and has at least four MPs in the last Lok Sabha polls; or if it has won at least 2% of the total seats in the Lok Sabha from not less than three states. **Hence statement 2 is not correct**
- If a party is recognised as a State Party, it is entitled for **exclusive allotment of its reserved symbol to the candidates in the State in which it is so recognised**. If a party is recognised as a National Party, it is entitled for **exclusive allotment of its reserved symbol to the candidates throughout India**. Further, they get broadcast/telecast facilities over Akashvani/Doordarshan during general elections. **Hence statement 3 is correct**

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**Q.22) Consider the following statements about Sea Cucumber**

1. Sea cucumbers belong to benthic animal group.
2. They excrete inorganic nitrogen and phosphorus which enhance the productivity of benthic animals.
3. They are protected under Schedule I of Wildlife Protection Act, 1972.
4. Lakshadweep has created the world's first conservation area for sea cucumbers.

Choose the correct statements:

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

Q.22) Solution (d)

**Explanation:**

- These are part of a **larger animal group called echinoderms and are invertebrates that live on the seafloor.**
- Their body shape is similar to a cucumber, but they have small tentacle-like tube feet that are used for locomotion and feeding.
- They are found in all marine environments throughout the world, from shallow to deep-sea environments. **Sea cucumbers are benthic, meaning they live on the ocean floor. Hence statement 1 is correct.**
- They **excrete inorganic nitrogen and phosphorus, enhancing the productivity of benthic biota. Hence statement 2 is correct.**
- Lakshadweep has created the world's first conservation area for sea cucumbers. **Hence statement 4 is correct.**
- Other than the sea around Lakshadweep Islands and Andaman Nicobar Islands, the Gulf of Mannar at the confluence of the Indian Ocean and Bay of Bengal in Tamil Nadu is also home to sea cucumbers.

**Protection:**

- **IUCN Red List:** Brown Sea Cucumber (Endangered), Blackspotted Sea Cucumber (Least Concern), Blue Sea Cucumber (Data Deficient), etc.
- **Wildlife Protection Act, 1972: Schedule I. Hence statement 3 is correct.**

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**Q.23) Consider the following statements**

1. Yuva Portal aims to help in connecting and identifying potential young start-ups across the country.
2. It is a joint initiative of Ministry of Corporate Affairs and Ministry of Micro, Small and Medium Enterprises.

Choose the correct statements:

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

Q.23) Solution (a)

**Explanation:**

- **Yuva portal:** It is aimed to help in connecting and identifying potential young start-ups across the country. Hence statement 1 is correct.
- It will help in connecting and identifying potential young Start-Ups.
- The **Union Minister of State Science & Technology** launched the 'Yuva' portal. Hence statement 2 is correct.

Source: [CLICK HERE](#)

**Q.24) Consider the following statements**

1. Sudan is a landlocked country in Central Africa.
2. Sudan is drained by the Nile River and its tributaries.
3. Darfur region, recently in news is located in the Western Sudan.

Choose the correct statements:

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

Q.24) Solution (b)

**Explanation:**

- It is located in northeastern Africa.
- It is bounded on the north by Egypt, on the east by the Red Sea, Eritrea, and Ethiopia, on the south by South Sudan, on the west by the Central African Republic and Chad, and on the northwest by Libya. Hence statement 1 is not correct.
- Capital: Khartoum



- Sudan is mainly composed of vast plains and plateaus that are drained by the Nile River and its tributaries. Hence statement 2 is correct.
- The country is dominated by Muslims, most of whom speak Arabic and identify themselves as Arabs.



Source: [CLCIK HERE](#)

**Q.25) Global Food Policy Report 2023, recently seen in news is published by which of the organization?**

- a) Food and Agriculture Organization (FAO)
- b) United Nations Development Programme (UNDP)
- c) International Rice Research Institute (IRRI)
- d) International Food Policy Research Institute (IFPRI)

Q.25) Solution (d)

**Explanation:**

- Recently, the International Food Policy Research Institute (IFPRI) published Global Food Policy Report, 2023 which said that investing in early warning systems is essential to save lives, livelihoods and money.

**Key highlights of the report:**

The report called for a more proactive response to food system shocks with a focus on three key areas:

- Crisis prediction and preparation
- Building resilience before and during crises
- Making crisis response supportive and inclusive of women, forced migrants and other vulnerable groups.
- It advocated for strengthening agrifood value chains to support livelihoods and food security during crises.
- It advised governments to maintain a business environment that fosters flexibility, and technical and financial innovation.

**International Food Policy Research Institute (IFPRI)**

- It was **established in 1975 and provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition** in developing countries.

- Headquarters: Washington, D.C
- It is a research centre of CGIAR, which is the world's largest agricultural innovation network.

*Its research focuses on five strategic research areas:*

- Fostering Climate-Resilient and Sustainable Food Supply
- Promoting Healthy Diets and Nutrition for All
- Building Inclusive and Efficient Markets, Trade Systems, and Food Industry
- Transforming Agricultural and Rural Economies
- Strengthening Institutions and Governance

Source: [CLICK HERE](#)

**Q.26) Kamal started a business investing Rs. 9000. After five months, Sameer joined with a capital of Rs.8000. If at the end of the year, they earn a profit of Rs. 6970, then what will be the share of Sameer in the profit?**

- a) Rs. 2380
- b) Rs. 2260
- c) Rs. 2300
- d) Rs. 2280

Q.26) Solution (a)

**Explanation:**

Now as per question, Kamal invested for 12 months and Sameer invested for 7 months.

So Kamal : Sameer =  $(9000 \times 12) : (8000 \times 7)$

= 108 : 56

= 27 : 14

Sameer Ratio in profit will be

$$= 6970 \times 14/41$$

$$= \text{Rs. } 2380$$

**Q.27) A, B, C rent a pasture. A puts 10 oxen for 7 months, B puts 12 oxen for 5 months and C puts 15 oxen for 3 months for grazing. If the rent of the pasture is Rs. 175, how much must C pay as his share of rent?**

- a) Rs. 45
- b) Rs. 40
- c) Rs. 50
- d) Rs. 30

Q.27) Solution (a)

**Explanation:**

A : B : C

$$= (10 \times 7) : (12 \times 5) : (15 \times 3)$$

$$= 70 : 60 : 45$$

$$= 14 : 12 : 9$$

$$\therefore \text{C's rent} = \text{Rs. } (175 * (9/35))$$

Rs. 45

**Q.28) A, B and C enter into a partnership with capitals in the ratio 5 : 6 : 8. At the end of the business term, they received the profit in the ratio 5 : 3 : 12. Find the ratio of time for which they contributed their capitals?**

- a) 2 : 1 : 3
- b) 1 : 2 : 3
- c) 2 : 3 : 1

d) 3 : 2 : 1

Q.28) Solution (a)

**Explanation:**

Profit = Time × Capital invested

Time = Profit/capital invested

Required ratio of time

= 5/6 : 3/6 : 12/8

= 1 : 1/2 : 3/2

= 2 : 1 : 3

**Q.29) On 19th June, 1984 Monday falls. What day of the week was it on 19th June, 1985?**

- a) Sunday
- b) Monday
- c) Tuesday
- d) Wednesday

Q.29) Solution (c)

**Explanation:**

The year 1985 is an ordinary year. So, it has 1 odd day.

So, the day on 19th June, 1985 will be 1 day after the day on 19th June, 1984.

But, 19th June, 1984 is Monday

So, 19th June, 1985 is Tuesday.

**Read the following passage and answer the item that follow. Your answer to these items should be based on the passages only**

**Passage 1**

In recent years, teachers of introductory courses in Asian American studies have been facing a dilemma non-existent a few decades ago, when hardly any texts in that field were available. Today, excellent anthologies and other introductory texts exist, and books on individual Asian American nationality groups and on general issues important for Asian Americans are published almost weekly. Even professors who are experts in the field find it difficult to decide which of these to assign to students; non-experts who teach in related areas and are looking for writings for and by Asian American to include in survey courses are in an even worse position.

A complicating factor has been the continuing lack of specialized one-volume reference works on Asian Americans, such as biographical dictionaries or desktop encyclopedias. Such works would enable students taking Asian American studies courses to look up basic information on Asian American individuals, institutions, history, and culture without having to wade through mountains of primary source material. In addition, give such works, Asian American studies professors might feel more free to include more challenging Asian American material in their introductory reading lists, since good reference works allow students to acquire on their own the background information necessary to interpret difficult or unfamiliar material.

**Q.30) According to the author which of the following was true of introductory courses in Asian American studies a few decades ago?**

- a) The texts assigned as readings in such courses were often not very challenging for students.
- b) The range of different textbooks that could be assigned for such courses was extremely limited.
- c) Students often complained about the texts assigned to them in such courses.
- d) Such courses were offered only at schools whose libraries were rich in primary sources.

Q.30) Solution (b)

**Explanation:**

Refer to, “In recent years, teachers of introductory courses in Asian American studies have been facing a dilemma non-existent a few decades ago, when hardly any texts in that field were available “. These lines suggest that the range of different textbooks that could be assigned for Asian American studies was extremely limited.

Hence, option b is the correct answer.

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