

ForumIAS

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Prelims Marathon

20 Sept to 26 Sept 2021

*HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT*

Environment

Q.1) “State of Global Air” is recently in news, is released by?

- a) World Economic Forum
- b) Health Effects Institute
- c) UNEP
- d) World Bank

ANS: B

Explanation: Long-term exposure to outdoor and household air pollution contributed to over 1.67 million annual deaths from stroke, heart attack, diabetes, lung cancer, chronic lung diseases and neonatal diseases in India in 2019, according to the State of Global Air 2020 by the U.S.-based Health Effects Institute.

Overall, air pollution was now the largest risk factor for death among all health risks, the report noted.

Source: <https://www.thehindu.com/news/cities/Delhi/air-pollution-now-biggest-health-risk-in-india-says-report/article32912916.ece>

Q.2) Consider the following statements:

1. According to IQAir, New Delhi was the world’s most polluted capital in 2020.
2. Report is based on the calculation of PM 10.

Which of the statements above given is/are correct?

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

ANS: A

Explanation: New Delhi was the world’s most polluted capital for the third straight year in 2020, according to IQAir, a Swiss group that measures air quality levels based on the concentration of lung-damaging airborne particles known as PM2.5.

- India was home to 35 of the world’s 50 most polluted cities, according to IQAir’s 2020 World Air Quality Report, which gathered data for 106 countries.
- The findings were based on the country’s annual average of particulate matter PM2.5, airborne particles with less than 2.5 microns in diameter.
- Prolonged exposure to PM2.5 can lead to deadly diseases, including cancer and cardiac problems.

Source: <https://indianexpress.com/article/india/new-delhi-is-worlds-most-polluted-capital-for-third-straight-year-iqair-study-7230892/>

Q.3) Consider the following statements regarding particulate matter:

1. PM2.5 and PM10 are mixture of solid and liquid particles generally having diameters of a single strand of average human hair.
2. The common chemical composition of particulate matter includes nitrates, sulfates, ammonium, and also metals and biological components.

Which of the statements above given is/are correct?

- a) 1 only

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

ANS: C

Explanation: PM_{2.5} and PM₁₀ are mixture of solid and liquid particles generally having diameters of or less than 2.5 and 10 micrometers— smaller than the diameter of a single strand of average human hair, which is about 70 micrometers.

- The 24 hour exposure limit of PM_{2.5} in India is 60 micrograms per cubic meter air (ug/m³), while that of PM₁₀ is 100 ug/m³.
- At the three highly polluted areas in Delhi between 12PM Thursday and Friday, the levels of PM_{2.5} and PM₁₀ had reached 500 ug/m³ or close to it.
- These particulates are emitted from various sources and can be inhaled, causing serious health problems.
- Their physical and chemical characteristics vary by location, and common chemical composition includes nitrates, sulfates, ammonium, and also metals and biological components.

Source: <https://indianexpress.com/article/explained/explained-as-pollution-peaks-in-delhi-a-look-at-pollutants-you-should-be-worried-of-6853273/>

Q.4) Which of the following is/are common source/sources of Particulate Matter?

1. Combustion of petrol & diesel engines
2. Combustion of solid fuel for energy production
3. Erosion of pavement by road traffic

Select the correct answer using the codes given below:

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

ANS: D

Explanation: Combustion of diesel and petrol in engines, combustion of solid fuel for energy production, construction and industrial activities, and erosion of pavement by road traffic are some of the primary sources of PM, but they are also formed in the atmosphere through chemical reaction of gaseous pollutants.

Source: <https://indianexpress.com/article/explained/explained-as-pollution-peaks-in-delhi-a-look-at-pollutants-you-should-be-worried-of-6853273/>

Q.5) Consider the following statements regarding Ammonia:

1. It occurs naturally in air, soil and water, and is used as an agricultural fertilizer and in cleaning products.
2. Short-term inhalation of high levels of ammonia can cause irritation and serious burns in the mouth, lungs and eyes.

Which of the statements above given is/are correct?

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

ANS: C

Explanation: Ammonia (NH₃) is another gaseous pollutant that is monitored, whose 24-hour exposure limit is 400 µg/m³.

- The average 24-hour range of NH₃ as of 1pm on Friday at the three highly polluted areas in Delhi was between 9 and 28 µg/m³, as per CPCB data.
- The EPA states that ammonia occurs naturally in air, soil and water, and is used as an agricultural fertiliser and in cleaning products.
- Short-term inhalation of high levels of ammonia can cause irritation and serious burns in the mouth, lungs and eyes.
- Chronic exposure to airborne ammonia can increase the risk of respiratory problems, including impaired lung function.

Source: <https://indianexpress.com/article/explained/explained-as-pollution-peaks-in-delhi-a-look-at-pollutants-you-should-be-worried-of-6853273/>

Q.6) Consider the following statements regarding Sulfur Dioxide:

1. India is the largest emitter of Sulfur dioxide pollution.
2. Largest source of SO₂ in atmosphere is burning of fossil fuels by power plants and other industrial facilities.

Which of the statements above given is/are correct?

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

ANS: C

Explanation: Sulphur dioxide (SO₂) and particulate matter emitted from combustion of fossil fuels have, historically, been the main components of air pollution in many parts of the world.

- A Greenpeace report from 2019 had found that India was the largest emitter of SO₂ in the world due to burning of coal.
- The EPA states that largest source of SO₂ in atmosphere is burning of fossil fuels by power plants and other industrial facilities.
- Short-term exposure to SO₂ can harm respiratory system, making breathing more difficult.
- SO₂ emissions in the air can also lead to formation of other sulphur oxides (SO_x), which can react with other compounds in the atmosphere and form particulate matter.

Source: <https://indianexpress.com/article/explained/explained-as-pollution-peaks-in-delhi-a-look-at-pollutants-you-should-be-worried-of-6853273/>

Q.7) Which of the following is/are the applications of fly ash?

1. Fly ash bricks are light in weight and offer high strength and durability.
2. It can be used in reclamation of wastelands.
3. It can increase the crop yield and it also enhances water holding capacity of the land.

Select the correct answer using the code given below:

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

ANS: D

Explanation: Cement can be replaced by fly ash up to 35%, thus reducing the cost of construction, making roads, etc.

- Fly ash bricks are light in weight and offer high strength and durability.
- Fly ash is a better fill material for road embankments and in concrete roads.
- Fly ash can be used in reclamation of wastelands.
- Abandoned mines can be filled up with fly ash.
- Fly ash can increase the crop yield and it also enhances water holding capacity of the land.

Source: Shankar

Q.8) Consider the following statements regarding “National Air Quality Index”:

1. It was launched in April, 2015 starting with 14 cities to disseminate air quality information.

2. Carbon monoxide and Ozone are part of National Air Quality Index.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: National Air Quality Index was launched by the Prime Minister in April, 2015 starting with 14 cities to disseminate air quality information.

- The AQI has six categories of air quality, viz Good, Satisfactory, Moderately Polluted, Poor, Very Poor and Severe with distinct colour scheme.
- Each of these categories is associated with likely health impacts.
- AQI considers eight pollutants (PM10, PM 2.5, NO₂, SO₂, CO, O₃, NH₃ and Pb) for which (up to 24-hourly averaging period) National Ambient Air Quality Standards are prescribed.

Source: Shankar page no: 61

Q.9) The terms “Biological Oxygen Demand, Biochemical Oxygen Demand and Chemical Oxygen Demand” are related to which of the following?

- a) Green House Gases
- b) Water Pollution
- c) Air Pollution
- d) Soil Pollution

ANS: B

Explanation: The higher amounts of waste increases the rates of decomposition and O₂ consumption, thereby decreases the DO content of water.

- The demand for O₂ is directly related to increasing input of organic wastes and is expressed as biological oxygen demand (BOD) of water.
- Water pollution by organic wastes is measured in terms of Biochemical Oxygen Demand (BOD).
- BOD is the amount of dissolved oxygen needed by bacteria in decomposing the organic wastes present in water. It is expressed in milligrams of oxygen per litre of water.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- The higher value of BOD indicates low DO content of water. Since BOD is limited to biodegradable materials only. Therefore, it is not a reliable method of measuring pollution load in water.
- Chemical oxygen demand (COD) is a slightly better mode used to measure pollution load in water.
- It is the measure of oxygen equivalent of the requirement of oxidation of total organic matter (i.e. biodegradable and non-biodegradable) present in water.

Source: Shankar

Q.10) “The methaemoglobinemia” symptoms are due to which of the following?

- a) Fluorides
- b) Cadmium
- c) Lead
- d) Nitrate

ANS: D

Explanation: Excess nitrate in drinking water reacts with hemoglobin to form non-functional methaemoglobin, and impairs oxygen transport. This condition is called methaemoglobinemia or blue baby syndrome.

Source: Shankar

Environment

Q.1) “Raorchestes resplendens” species is often seen in news, is?

- a) Frog
- b) Snake
- c) Skink
- d) Butterfly

ANS: A

Explanation: The Raorchestes resplendens or the resplendent shrubfrog lives up to its name. An iridescent blob of colour amid foliage, it is a striking mix of orange and purplish-black.

- This critically endangered frog found in Anaimudi, the highest peak in the Western Ghats, has an unexpectedly loyal fan following.
- Every South West Monsoon, as the evergreen forests are drenched in rain, people travel from afar just to catch a glimpse of the resplendens.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/herping-enthusiasts-on-the-fascinating-world-of-reptiles-and-ambhians-and-the-growing-interest-in-herping/article33232444.ece>

Q.2) “State of the Global Climate report” is released by?

- a) UNEP
- b) WEF
- c) WMO
- d) UNDP

ANS: C

Explanation: The World Meteorological Organization is publishing the State of the Global Climate report since 1993.

The report mainly documents indicators of climate system such as increasing land and ocean temperatures, greenhouse gas concentrations, melting ice, sea-level increase, glacier retreat and extreme weather.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/2020-one-of-three-hottest-years-ever-recorded-un/article33238013.ece>

Q.3) “Production Gap assessment report” is published and released by?

- a) UNEP
- b) UNCTAD
- c) World Bank
- d) WEF

ANS: A

Explanation: Modeled after the UNEP’s Emissions Gap Report series — and conceived as a complementary analysis — this report conveys the large discrepancy between countries’ planned fossil fuel production and the global production levels necessary to limit warming to 1.5°C and 2°C.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/2020-one-of-three-hottest-years-ever-recorded-un/article33238013.ece>

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

Q.4) Which African country put up auction of high value wild elephants up for sale due to drought and an increase in elephant numbers?

- a) Zambia
- b) Nigeria
- c) Namibia
- d) Kenya

ANS: B

Explanation: Namibia has put 170 “high value” wild elephants up for sale due to drought and an increase in elephant numbers, the southern African country's environmental ministry said.

- Namibia's conservation drive, which has seen its elephant population jump from around 7,500 in 1995 to 24,000 in 2019 according to government figures, has enjoyed international support.
- But last year Namibia said it was considering withdrawing from the rules that govern the global trade in endangered species.
- This was after countries voted during a CITES meeting to reject proposals to relax restrictions on hunting and exporting its white rhinos.
- The country wants to allow more trophy hunting and the export of live animals, arguing that the funds it would raise would help it to protect the species.
- In October it put 70 female and 30 male buffalos from Waterberg Plateau Park in central Namibia up for sale in a bid to ease pressure on grazing land.
- The arid southern African nation also auctioned 1,000 animals from national parks, including 500 buffalos in 2019 as it faced the worst drought in a century.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/namibia-to-auction-170-elephants-over-drought-increased-population/article33238174.ece>

Q.5) Which of the following institutions/targets is/are deals with the issues of Invasive alien Species?

1. IUCN
2. Aichi Biodiversity targets
3. Sustainable Development goals

Select the correct answer using the codes given below:

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

ANS: D

Explanation: An alien species is a species introduced outside its natural past or present distribution; if this species becomes problematic, it is termed an invasive alien species (IAS).

- IAS are the most common threat to amphibians, reptiles and mammals on The IUCN Red List; they may lead to changes in the structure and composition of ecosystems detrimentally affecting ecosystem services, human economy and wellbeing.
- IAS are such a problem that Aichi Biodiversity Target 9 and one clause of UN Sustainable Development Goal 15 – Life on Land specifically address the issue.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/study-finds-repeated-waves-of-giant-african-snail-invasion-in-kerala/article33262455.ece>

Q.6) “Pobitora Wildlife Sanctuary” is often seen in news, is located in which of the following states?

- a) Tamil Nadu
- b) Madhya Pradesh
- c) Assam
- d) Himachal Pradesh

ANS: C

Explanation: The authorities in eastern Assam’s Dibrugarh district have undertaken a drive to vaccinate livestock around the Joypur rainforest after anthrax was confirmed as the cause of the death of two female elephants.

- This is the second case of anthrax in the State after two Asiatic water buffaloes died in the Pobitora Wildlife Sanctuary in October 2019.
- The sanctuary, 48 km east of Guwahati, is often called ‘Mini Kaziranga’ owing to a similar landscape.

Source: <https://www.thehindu.com/news/national/other-states/vaccination-drive-in-assam-after-anthrax-kills-elephants-in-joypur-rainforest/article33296288.ece>

Q.7) “The Global Carbon Project” is often seen in news, is launched by?

- a) UNEP and UNDP
- b) WEF and UNDP
- c) WB and GEF
- d) Future Earth and World Climate Research Programme

ANS: D

Explanation: The Global Carbon Project is a Global Research Project of Future Earth and a research partner of the World Climate Research Programme.

- It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.
- The overwhelming realization that anthropogenic climate change is a reality has focused the attention of the scientific community, policymakers and the general public on the rising atmospheric concentrations of the main greenhouse gases, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).
- The GCP has approached this challenge by focusing comprehensively on the global biogeochemical cycles which govern these three greenhouse gases, including their natural and human drivers, and opportunities for low carbon pathways.

Source: <https://www.thehindu.com/news/international/world-carbon-dioxide-emissions-drop-7-in-pandemic-hit-2020/article33304949.ece>

Q.8) “The Ban Amendment” is associated with which of the following?

- a) Rotterdam Convention
- b) Basel Convention
- c) Paris Convention
- d) Stockholm Convention

ANS: B

Explanation: The 1995 Basel Ban Amendment, a global waste dumping prohibition, has become an international law after Croatia ratified it on September 6, 2019.

- Croatia became the 97th country to ratify the ban, which was adopted by the parties to the Basel Convention in 1995, to protect human health and the environment

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

against the adverse effects of hazardous wastes, according to Basel Action Network (BAN).

- BAN is a United States-based charity organisation and is one among the organisations and countries, which created the Basel Ban Amendment — hailed as a landmark agreement for global environmental justice.
- The Ban Amendment had been stalled for all these years due to uncertainty over how to interpret the Convention.
- It will become a new Article in the Convention and will enter into force in the 97 countries after 90 days.

Source: <https://www.downtoearth.org.in/news/waste/basel-ban-amendment-becomes-law-66651>

Q.9) Which of the following waste/wastes is/are prohibited under Basel Convention?

1. Toxic factory waste
2. Old computers waste
3. Obsolete ships

Select the correct answer using the codes given below:

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

ANS: D

Explanation: The Ban Amendment, adopted in 1994, effectively bans, as of 1 January, 1998, all forms of hazardous waste exports from the 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.

- But the Ban Amendment had been stalled for all these years due to uncertainty over how to interpret the Convention.
- The Ban Amendment ensures that developing countries are not convenient dumping grounds for toxic factory waste, obsolete ships containing asbestos or old computers coming from affluent countries.

Source: <https://www.downtoearth.org.in/indepth/basel-final-day-rich-nations-cant-dump-toxic-waste-on-poor-nations--34313>

Q.10) Which of the following protocol/protocols is/are comes under Convention on Biological Diversity?

1. Kyoto protocol
2. Cartagena protocol
3. Nagoya protocol

Select the correct answer using the codes given below:

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

ANS: C

Explanation: Convention on Biological Diversity Protocols is:

- The Nagoya Protocol on Access and Benefit-sharing
- The Cartagena Protocol on Bio-safety
- The Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Bio-safety

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

Source: <https://www.cbd.int/convention/protocols/>

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Environment

Q.1) Consider the following statements regarding Botanical Survey of India:

1. It was established in 1890.
2. It acting as the custodian of authentic collections in well planned herbaria and documenting plant resources in the form of local, district, state and national flora.

Which of the statements above given is/are correct?

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

ANS: C

Explanation: The Botanical Survey of India (BSI) was established in 1890 with the objectives of exploring the plant resources of the country and identifying plant species with economic virtue.

- In 1954, the Government reorganized the BSI with the objectives of (1) undertaking intensive floristic surveys and collecting accurate and detailed information on the occurrence, distribution, ecology and economic utility of plants in the country;
- (2) collecting, identifying and distributing materials that may be of use to educational and research institutions;
- and (3) acting as the custodian of authentic collections in well planned herbaria and documenting plant resources in the form of local, district, state and national flora.

Source: <https://bsi.gov.in/page/en/brief-history#>

Q.2) Consider the following statements regarding Indian Council of Forestry Research and Education (ICFRE):

1. It as an umbrella organization for taking care of forestry research, education and extension needs of the country.
2. Its headquarters is located in New Delhi.

Which of the statements above given is/are correct?

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

ANS: A

Explanation: The journey of ICFRE was initiated way back towards the end of the nineteenth century with the advent of scientific forestry in India and the establishment of the Forest School in Dehradun in 1878.

- It was on 5th June 1906 subsequently that the Imperial Forest Research Institute was founded by Government of India for taking forward forestry research in the country.
- In 1986 the Indian Council of Forestry Research and Education or ICFRE was formed as an umbrella organisation for taking care of forestry research, education and extension needs of the country.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- Finally on 1st June 1991, the ICFRE was declared an autonomous Council under the then Ministry of Environment and Forests and registered as a Society under the Societies Registration Act, 1860.
- Presently, ICFRE with its Headquarters at Dehradun is an apex body in the national forestry research system that promotes and undertakes need based forestry research extension.

Source: <https://www.icfre.org/history>

Q.3) Which of the following famous personality is NOT founding member of Bombay Natural History of Science (BNHS)?

- Atmaram Pandurang
- D Mcdonald
- Sakharam Arjun
- Rukminidevi arundale

ANS: D

Explanation: In 1883, eight nature-loving residents of Bombay decided to exchange notes and exhibit interesting specimens of natural history. They came together at Bombay's Victoria and Albert Museum on September 15 and constituted the Bombay Natural History Society. Of them, two were Indians.

THE FOUNDERS

In 1883, eight nature-loving residents of Bombay decided to exchange notes and exhibit interesting specimens of natural history. They came together at Bombay's Victoria and Albert Museum on September 15 and constituted the Bombay Natural History Society. Of them, two were Indians.

Dr. D. MacDonald	Mr. E. H. Aitken	Col. C Swinhoe
Mr. J. C. Anderson	Mr. J Johnston	Dr. Atmaram Pandurang
Dr. G A Maconochie	Dr. Sakharam Arjun	

Source: <https://www.bnhs.org/who-we-are>

Q.4) Consider the following statements regarding Zoological Survey of India:

1. It was established at the time period of Lord Chelmsford.
2. It was established to promote survey, exploration and research leading to the advancement in our knowledge of various aspects of exceptionally rich life.

Which of the statements above given is/are correct?

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

ANS: C

Explanation: The Zoological Survey of India (ZSI) was established on 1st July, 1916 to promote survey, exploration and research leading to the advancement in our knowledge of various aspects of exceptionally rich life of the erstwhile British Indian Empire.

- The survey has its genesis in the establishment of the Zoological Section of the Indian Museum at Calcutta in 1875.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- By gradually strengthening its staff and expanding its research program, the Survey has met the challenge of the past and is on its way to meet the demands of the future. It has maintained its primary objectives unchanged from its inception...
- Initially, the Survey acquired the Zoological collections of more than a century old from former Museum (1814 -1875) of the Asiatic Society of Bengal and Zoological Section of the Indian Museum (1875-1916) in Calcutta.
- With the increasing interest in the life sciences and with the advent of country's Five Year Plans, the expansion programme of the survey was initiated.
- The Survey has established so far 16 Regional and Field Stations, and has developed into a major National Institution.
- It functions as the guardian of the National Zoological Collections, containing over a million identified specimens from all animal groups ranging from Protozoa to Mammals.
- Extensive and intensive field explorations are undertaken by the Survey in different parts of the country for the studies of fauna, systematic zoology, animal ecology, wildlife and zoogeography, animal behavior, animal population and also marine fauna and the results of the explorations and research are published in its own journals as well as National and International periodicals of repute regularly.

Source: <https://zsi.gov.in/App/Introduction.aspx?nr=n>

Q.5) Consider the following statements regarding “Environmental (Protection) Act, 1986”:

1. The genesis of the Act lies in Article 21 and Article 51A (g) of the Indian Constitution.
2. It has relaxed the rule of “Locus Standi” and a common citizen can approach the Court with respect to environment protection.

Which of the statements given above is/are correct?

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

ANS: B

Explanation: As compared to all other previous laws on environment protection, the Environment (Protection) Act, 1986 is a more effective and bold measure to fight the problem of pollution.

- The genesis of the Environmental (Protection) Act, 1986, thus, is in Article 48A (Directive Principles of State Policy) and Article 51A (g) (Fundamental Duties) of the Indian Constitution.
- The Environment (Protection) Act, 1986 has relaxed the rule of “Locus Standi” and because of such relaxation even a common citizen can approach the Court provided he has given a notice of sixty days of the alleged offence and his intention to make a complaint to the Central Government or any other competent authority.

Source: Shankar

Q.6) “The state shall endeavor to protect and improve the environment and to safeguard forest and wildlife of the country” is describes which of the following article of Indian constitution?

- a) Article 39A
- b) Article 44
- c) Article 48A
- d) Article 51A (G)

ANS: C

Explanation: The provisions for environmental protection in the constitution were made within four years of Stockholm Conference, in 1976, though the 42nd amendment as follows:

- Article-48-A of the constitution provides: “The state shall endeavour to protect and improve the environment and to safeguard forest and wildlife of the country.”
- Article 51-A (g) Provides: It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.”

Source: Shankar

Q.7) Consider the following statements regarding “National Green Tribunal”:

1. It was created for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
2. It is mandated to dispose the cases within six months of their respective appeals.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: The Preamble of the act provides for the establishment of a National Green Tribunal for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources, including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto (The National Green Tribunal Act, 2010).

NGT is mandated to dispose the cases within six months of their respective appeals.

Source: Shankar

Q.8) Consider the following statements regarding “National Wildlife Action Plan (NWAP)”:

1. It was created by the provisions of the Environment Protection Act, 1986.
2. The first National Wildlife Action Plan (NWAP) was adopted in 1993.

Which of the statements given above is/are correct?

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

ANS: D

Explanation: The first National Wildlife Action Plan (NWAP) was adopted in 1983, based upon the decision taken in the XV meeting of the Indian Board for Wildlife held in 1982. The plan had outlined the strategies and action points for wildlife conservation which are still relevant.

Source: Shankar

Q.9) Consider the following statements regarding “Compensatory Afforestation Fund Management and Planning Authority (CAMPA)”:

1. It was created under the provisions of the forest conservation act, 1980.

2. Resources realized from diverting forest resources to commercial purpose should be used for afforestation.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: While according prior approval under the Forest (Conservation) Act, 1980 for diversion of forest land for non-forest purpose, Central Government stipulates conditions that amounts shall be realised from the user agencies to undertake compensatory afforestation and such other activities related to conservation and development of forests, to mitigate impact of diversion of forest land.

Source: Shankar

Q.10) “Cartagena Protocol” is often seen in news is related to which of the following?

- a) Sustainable agriculture
- b) Renewable energy
- c) Bio-safety
- d) Ozone layer protection

ANS: C

Explanation: The Cartagena Protocol on Bio-safety is an additional agreement to the Convention on Biological Diversity.

- The Protocol establishes procedures for regulating the import and export of LMOs from one country to another.
- The Protocol also requires Parties to ensure that LMOs being shipped from one country to another are handled, packaged and transported in a safe manner.

Source: Shankar

Environment

Q.1) “Espoo Convention” is recently seen in news, is related to which of the following?

- a) Environmental Impact Assessment
- b) Plastic Waste
- c) Ocean Acidification
- d) Solar energy

ANS: A

Explanation: The Delhi high court has extended the period of public consultation on the draft of the Environment Impact Assessment (EIA) notification 2020, released by the Ministry of Environment, Forests and Climate Change, until August 11, 2020.

- The extension reiterates the established principles of public participation in environmental governance.
- The EIA Notification 2020, which will supersede 2006 notification, has come under severe criticism from environmentalists who have demanded its early withdrawal.
- Indeed, the draft notification’s regression and dilution of environmental criteria conflict with the established principles of international law.
- The public participation and modalities in EIA have been elaborated at the International level in the Convention on Environmental Impact Assessment in a Trans-boundary Context (“Espoo Convention”).

Source: <https://thewire.in/environment/draft-environment-impact-assessment-notification-international-law>

Q.2) Consider the following statements regarding Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):

1. It places a joint responsibility on producer and consumer Parties for managing wildlife trade sustainably and preventing illegal trade.
2. It contains three lists of species with respect to degree of trade & protection.

Which of the statements above given is/are correct?

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

ANS: C

Explanation: Concerned about the overexploitation of many vulnerable species as a result of unregulated international trade, governments adopted the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973.

- The treaty entered into force in 1975 and now has 183 Parties.
- The Convention places a joint responsibility on producer and consumer Parties for managing wildlife trade sustainably and preventing illegal trade.
- CITES regulates international trade in over 36,000 species of plants and animals, including their products and derivatives, ensuring their survival in the wild with benefits for the livelihoods of local people and the global environment.
- The animals and plants protected by CITES are known as CITES-listed species because they are included on three lists approved by the Parties called CITES Appendices.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- CITES protects these species from being excessively traded and exploited illegally and unsustainably in the wild as their extinction would have irreversible ecological consequences and negative economic and social effects.
- The CITES permit system seeks to ensure that international trade in listed species is sustainable, legal and traceable.

Source: <https://sustainabledevelopment.un.org/index.php>

Q.3) Which of the following is/are migratory animal/animals found in India?

1. Asian Elephant
2. Great Indian Bustard
3. Urial
4. Oceanic white-tip shark

Select the correct answer using the codes given below:

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

ANS: D

Explanation: With new additions to the wildlife list put out by the Convention on the Conservation of Migratory Species (CMS), scientists say that the total number of migratory fauna from India comes to 457 species. Birds comprise 83% (380 species) of this figure.

- The Zoological Survey of India (ZSI) had for the first time compiled the list of migratory species of India under the CMS before the Conference of Parties (COP 13) held in Gujarat recently.
- It had put the number at 451. Six species were added later. They are the Asian elephant, great Indian bustard, Bengal florican, oceanic white-tip shark, urial and smooth hammerhead shark.
- "We had compiled a list of the 451 species of migratory animals found in India. With the addition of new species to the CMS Appendices, the number is now 457," said Kailash Chandra, ZSI director.
- Globally, more than 650 species are listed under the CMS appendices and India, with over 450 species, plays a very important role in their conservation.

Source: <https://www.thehindu.com/news/national/india-is-host-to-457-migratory-fauna-shows-latest-cms-list/article30958132.ece>

Q.4) "Minamata Convention" is often seen in news, is related to which of the following?

- a) Cadmium
- b) Nitrate
- c) Mercury
- d) Helium

ANS: C

Explanation: The Union cabinet approved on February 2018, a proposal for ratification of the Minamata Convention, a global treaty to protect human health and the environment from adverse effects of mercury.

- After joining the Convention, it will now be easier for India to get technological or financial assistance to address issues related to mercury.
- "The approval entails ratification of the Minamata Convention on mercury along with flexibility for continued use of mercury-based products and processes involving mercury compound up to 2025," an official statement said.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- The government stressed that the convention will “urge enterprises to move to mercury-free alternatives in products and non-mercury technologies in manufacturing processes” and will “drive research and development, and promote innovation”.
- “The convention will be implemented in the context of sustainable development with the objective to protect human health and environment from the anthropogenic emissions and releases of mercury and mercury compounds,” the statement added.
- Till now, the convention has 88 ratifications and 144 signatories including India, which signed it on 30 September 2014. India had actively participated in the negotiating process, making significant contributions in finalizing the treaty text but had not ratified it till now.
- India’s neighbors – Sri Lanka, Bangladesh, Nepal and Pakistan – are also signatories to the convention. But only Sri Lanka has ratified it.
- In October 2013, at a conference in Kumamoto (Japan), the convention was formally adopted. The major highlights of the convention include a ban on new mercury mines, the phase-out of existing ones, the phase-out and phase-down of mercury use in a number of products and processes.
- It also addresses interim storage of mercury and its disposal once it becomes waste, and sites contaminated by mercury as well as health issues.
- Mercury is considered by experts to be one of the most toxic metals known.
- Once released into the environment, mercury bio-accumulates and bio-magnifies in the food chain, and easily enters the human body and impacts the nervous system.
- The treaty aims at protecting human health and the environment from its adverse effects.

Source: <https://www.livemint.com/Union-cabinet-approves-ratification-of-Minamata-Convention.html>

Q.5) “Waterfowl Habitat” is related to which of the following?

- a) Ramsar Convention
- b) Washington Convention
- c) Bonn Convention
- d) World Heritage Convention

ANS: A

Explanation: Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971.

Source: <https://biodiversitya-z.org/content/convention-on-wetlands-of-international-importance-especially-as-waterfowl-habitat-ramsar-convention>

Q.6) Which of the following is/are outcome of earth summit?

1. Agenda 21.
2. Forest principles.
3. Nagoya protocol.

Select the correct answer using the code given below:

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

ANS: B

Explanation: The Earth Summit resulted in the following documents:

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- Rio Declaration on Environment and Development
- Agenda 21
- Forest Principles

Source: Shankar

Q.7) Which of the following are priority areas of International Union for Conservation of Nature (IUCN)?

1. Biodiversity
2. Climate change
3. Sustainable energy
4. Human wellbeing
5. Agriculture conservation

Select the correct answer using the code given below:

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

ANS: A

Explanation: IUCN was founded in October 1948 as the International Union for the Protection of Nature (or IUPN) following an international conference in Fontainebleau, France.

The organization changed its name to the International Union for Conservation of Nature and Natural Resources in 1956 with the acronym IUCN (or UICN) with its head quarters in Gland, Switzerland.

Priority Areas of IUCN:

- Biodiversity
- Climate change
- Sustainable energy
- Human well-being
- Green economy

Source: Shankar

Q.8) Which of the following subspecies of tiger is/are present in wild?

1. Sumatran
2. Bali
3. Javan

Select the correct answer using the codes given below:

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

ANS: A

Explanation: The scientific name for the tiger is *Panthera tigris*.

- There are eight subspecies of tiger: among the eight, at present five subspecies are present in the wild.
- They are - Bengal, South China, Indochinese, Sumatran, and Siberian.
- Three subspecies of tiger—Caspian, Bali, and Javan—are extinct.

Source: Shankar page no: 187

Q.9) “Pugmark Census Technique” is used to estimate the population of which of the following specie?

- a) Tiger
- b) Great Indian Bustard
- c) Elephants
- d) Indian Hangul

ANS: A

Explanation: The process of estimating the number of tigers in a given area is called ‘Tiger census.’

- This exercise provides us with an estimate of tiger number, density and change in tiger indices - a measure of tiger occupancy in a given area.
- It is conducted at regular intervals to know the current tiger populations and population trends.
- Besides estimating the number of tigers the method also helps to gather information on the density of the tiger populations and associated prey.
- The most commonly used technique in the past was ‘Pugmark Census Technique’.
- In this method the imprints of the pugmark of the tiger were recorded and used as a basis for identification of individuals.
- Now it is largely used as one of the indices of tiger occurrence and relative abundance.

Source: Shankar

Q.10) “Nagarjunsagar-Srisaïlam Tiger Reserve” is the largest tiger reserve in India is located in which of the following state (s)?

- a) Andhra Pradesh
- b) Odisha
- c) Chhattisgarh
- d) Tamil Nadu

ANS: A

Explanation: Nagarjunsagar-Srisaïlam Tiger Reserve is the largest tiger reserve in India.

- The reserve spreads over five districts, Kurnool District, Prakasam District, Guntur District of Andhra Pradesh and Nalgonda District and Mahbubnagar district of Telangana state.
- The total area of the tiger reserve is 3,728 km².

Source: ENVIS

History

Q.1) Who among the following has discovered what was probably the first Paleolithic tool discovered in India — the Pallavaram hand-axe?

- a) Robert Bruce Foote
- b) Max Muller
- c) Alexander Cunningham
- d) James Princep

ANS: A

Explanation: The history and identity of human settlements in India go back to prehistoric times.

- The credit for doing an early extensive study of Indian pre-history go to Robert Bruce Foote, who discovered what was probably the first Paleolithic tool discovered in India — the Pallavaram hand-axe.
- Later, he discovered a large number of pre-historic sites in South India.

Source: NCERT

Q.2) Microlithic tools are mainly associated with which of the following cultural period?

- a) Paleolithic
- b) Mesolithic
- c) Neolithic
- d) Chalcolithic

ANS: B

Explanation: The characteristic tools of this age were microliths (miniature stone tools usually made of crypto-crystalline silica, chalcedony, or chert, both of geometrical and non-geometrical shapes).

They were not only used as tools in themselves but also to make composite tools, spearheads, arrowheads, and sickles after hafting them on wooden or bone handles.

Source: NCERT

Q.3) “Maski, Brahmagiri, Piklihal and Budihal” sites are mainly associated with which of the following?

- a) New Stone Age
- b) Copper Age
- c) Bronze Age
- d) Iron Age

ANS: A

Explanation: In northern India, the Neolithic age emerged around c.8000–6000 BCE.

- At some places in south and eastern India, it is as late as 1000 BCE.
- Its significance in pre-history can be gauged by the fact that V. Gordon Childe termed the Neolithic phase as Neolithic Revolution.
- Maski, Brahmagiri, Piklihal (proof of cattle herding), Budihal (community food preparation and feasting), and Tekkalakota in Karnataka are the important sites of Neolithic age.

Source: NCERT

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

Q.4) Consider the following statements regarding Harappan Civilization:

1. Harappans diet consists of vegetarian items only.
 2. Harappan writing was boustrophedon.
- Which of the statements above given is/are correct?

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

ANS: B

Explanation: The Harappans relished non-vegetarian food. Fish-eating was common. Milk and curd was also consumed.

- The Harappan societies of Sindh and Punjab largely consumed wheat and barley while those of Rangpur and Surkotda consumed rice and millets.
- The Harappan script was pictographic and logosyllabic (each symbol stood for a word/syllable).
- Harappan writing was boustrophedon, that is to say, right to left and left to right in alternate lines. The Harappan script has not been deciphered so far.

Source: NCERT

Q.5) Consider the following pair/pairs of craft material and Harappan site:

Site	Material
1. Rajasthan	: Copper
2. Shortughai	: Lapis lazuli
3. Balakot	: Shell

Which of the pair/pairs above given is/are correctly matched?

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

ANS: A

Explanation: Craft production was an important part of the Harappan economy. Bead and ornament making, shell bangle making and metalworking were the major crafts.

- They made beads and ornaments out of carnelian, jasper, crystal, and steatite, metals like copper, bronze and gold and shell, faience and terracotta or burnt clay.
- The beads were made in innumerable designs and decorations. They were exported to Mesopotamia and the evidence for such exported artefacts has been found from the excavations in Mesopotamian sites.
- Certain Harappan sites specialized in the production of certain craft materials. The following table presents the major centres of craft production.

Material	Site or Source
Shell	Nageshwar and Balakot
Lapis lazuli	Shortughai
Carnelian	Lothal
Steatite	South Rajasthan
Copper	Rajasthan and Oman

Source: NCERT

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

Q.6) The term 'Zebu' is sometimes seen while studying Indus Valley Civilization is used for?

- a) Cattles
- b) Shell Bangle making Factories
- c) Weight measuring tools
- d) Burnt Bricks

ANS: A

Explanation: Pastoralism was also practised by the Harappans. They domesticated sheep, goat and fowl.

- They had knowledge of various other animals including buffalo, pig and elephant. But horse was not known to them.
- The Harappan cattle are called Zebu. It is a large breed, often represented in their seals.
- They also ate fish and birds. Evidence of boar, deer and gharial has been found at the Harappan sites.

Source: Tamil Nadu state board class 11.

Q.7) Consider the following pair/pairs:

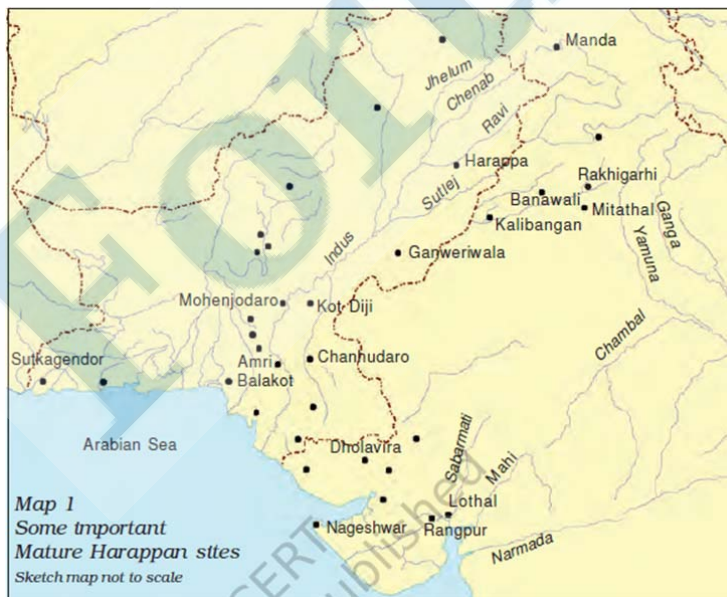
River	Harappan Site
1. Indus	Harappa
2. Sabarmati	Lothal
3. Ravi	Rakhigarhi

Which of the above given pair/pairs is/are correctly matched?

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

ANS: B

Explanation: The map below shows the location of major harappan sites with respective rivers.



Source: Themes in Indian History

Q.8) The only well known Hominin, the fossil of immediate ancestor of Homo sapiens is found at which of the following location?

- a) Bhimbetka, Madhya Pradesh
- b) Hunsgi Valley, Karnataka
- c) Pallavaram near Chennai
- d) Hathnora, Madhya Pradesh

ANS: D

Explanation: Unlike Africa, evidence of hominin [immediate ancestor of Homo sapiens] fossil is rare in India.

- There is a report of a fossil fragment discovered by Robert Bruce Foote from Athirampakkam.
- Its whereabouts are not known now. The only well-known hominin fossil of India was found at Hathnora near Hoshangabad in Madhya Pradesh.
- The cranium is named Narmada human. A partly preserved hominid skull cap was found in a basal conglomerate deposit in 1982.
- It is considered to represent the Archaic Homo sapiens. It is the only existing fossil find of human ancestors in India.

Source: Tamil Nadu state board

Q.9) Which of the following Neolithic site is located in North-eastern India?

- a) Mehrgarh
- b) Palavoy
- c) Daojali Hading
- d) Ganweriwala

ANS: C

Explanation: In north-eastern India, Neolithic culture appears at to a very late period. The Neolithic cultures of north-eastern India generally date from 2500-1500 BCE or even later.

- Shouldered axes and splayed celts have been found at the sites in Assam, Meghalaya, Nagaland and Arunachal Pradesh. Daojali Hading and Sarutaru are the Neolithic sites in the Assam region.
- This region bears evidence for shifting cultivation. Cultivation of yams and taro, building stone and wooden memorials for the dead, and the presence of Austro-Asiatic languages are the marked features of this region, which shows cultural similarities with South-east Asia.

Source: Tamil Nadu state board

Q.10) Consider the following statements regarding Ochre Coloured Pottery Ware Culture:

1. It dates to Chalcolithic period.
 2. Ochre colour comes when the pottery is touched.
- Which of the statements given above is/are correct?

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

ANS: C

Explanation: Ochre Coloured Pottery Ware culture is found in northern India dating to the Chalcolithic period.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- The OCP pottery has red slip and appears ochre in colour (the ochre colour comes off when the pottery is touched) and hence, it is called Ochre Coloured Pottery.
- It has black painted designs. The OCP comes in the form of jars, storage jars, bowls, and basins.
- The OCP culture dates to 2600- 1200 BCE and is found in the Indo- Gangetic plain and may have had some associations with early Vedic culture.

Source: Tamil Nadu state board

ForumIAS

History

Q.1) Central Asia is the homeland of the Aryans – is propounded by which of the following?

- a) Sir William Jones
- b) Max Muller
- c) Colin McKenzie
- d) Dr. B R Ambedkar

ANS: B

Explanation: Central Asia is the homeland of the Aryans – was propounded by Max Mueller.

- With the comparative study of the Avesta (Iranian text) and the Vedas, one finds striking linguistic relationship between them of not just words but of concepts too.
- The interchangeability between 'h' and 's' and incredible consistency in this change as hepta hindu (sapta sindhu), Ahura (asura), haoma (soma), daha (dasa) further substantiate the claim.

Source: Poonam Dahiya

Q.2) Consider the following statements regarding Rig Veda:

1. It has been included by the UNESCO in the list of literature signifying World Human Heritage.
2. The Rig Veda is a collection of 4000 hymns, divided into 10 Mandals.

Which of the statements above given is/are correct?

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

ANS: A

Explanation: The Rig Veda is a collection of 1,028 hymns, divided into 10 Mandals (books).

- They are the earliest compositions and hence, they depict the life of the Early Vedic people in India.
- Recently, the Rig Veda has been included by the UNESCO in the list of literature signifying World Human Heritage.
- The priests related to the Rig Veda are Kotri or Motri, and the Upveda of the Rig Veda is the Ayurveda.

Source: Poonam Dahiya

Q.3) Consider the following statements regarding Sama Veda:

1. It is the collection of verses mostly taken from the Rig Veda, arranged in a poetic form to facilitate singing.
2. It is a collection of 1,810 melodies, and also contains the famous Dhrupada raga, later sung by mirabhai.

Which of the statements above given is/are correct?

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

ANS: A

Explanation: The Sama Veda is the collection of verses mostly taken from the Rig Veda, but arranged in a poetic form to facilitate singing.

- It is a collection of 1,810 melodies, and also contains the famous Dhruvada raga, later sung by Tansen.
- The Upveda of the Sama Veda is the (Gandharva Veda). Recensions (Shakhas) of the Sama Veda are Kauthuma, Jaiminiya (Talavakara), and Ranayaniya.

Source: Poonam Dahiya

Q.4) Which of the following dwell on the “Atman and Brahman”, and focus a lot on the philosophy about life, universe, self, body, sacrifice, etc.?

- a) Rig Veda
- b) Upanishads
- c) Ajvikas
- d) Sravanas

ANS: B

Explanation: The literal meaning of Upanishad is to sit near someone. There are 108 Upanishads, of which 13 are the most prominent.

- The Upanishads dwell on the Atman and Brahman, and focus a lot on the philosophy about life, universe, self, body, sacrifice, etc.
- They emphasize that the knowledge of the self or atman should be acquired and that the relation of the atman with the Brahman should be properly understood.

Source: Poonam Dahiya

Q.5) Consider the following pairs:

Text	Meaning
1. Samhita	Main collection of hymns
2. Brahmanas	Forest books
3. Upanishads	Philosophical enquiries

Which of the pairs given above are correct?

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

ANS: C

Explanation: The main collections of Vedic hymns are called samhitas. The Rig Vedicsamhita is the earliest text. The Rig Veda is dated to between 1500 and 1000 BCE. The Rig Veda contains 10 books.

- Samhitas are ritualistic texts, and they explain the social and religious importance of rituals. Each samhita has added texts called brahmanas, which have commentaries on the hymns and rituals.
- Each brahmana has an aranyaka (forest text) and an upanishad. The aranyakas contain mystical ritual instructions to be undertaken in secret by the sages who live in the forests. Upanishads deal with philosophical enquiries.

Source: Tamil Nadu state board.

Q.6) Which of the following text is contemporary to Vedas?

- a) Zend Avesta
- b) Pyramid texts

- c) Sumerian Literature
- d) Quran

ANS: A

Explanation: The Zend Avesta is a Persian/Iranian text of Zoroastrianism. This book speaks about the lands and gods of the people speaking the Indo-Iranian languages.

- It has references to the regions of northern and north-western parts of India. It has terms which show linguistic similarity with the Vedas.
- This text is indirect evidence that the early home of the Aryans was outside the Indian subcontinent.

Source: Tamil Nadu state board.

Q.7) The 'urn' burial system is evident at which of the following site?

- a) Koldhihwa
- b) Mehrgarh
- c) Adichanallur
- d) Lothal

ANS: C

Explanation: The burial system followed by the people of Neolithic period continued into the Megalithic period.

- A circular tomb using big stone slabs built upon the place of burial is known as a megalith. Such megaliths have been found in many parts of Tamil Nadu.
- The urn burial system was another type of practice and is evidenced in Adichanallur (present Thoothukudi district). Black-ware is peculiar to burial sites in Tamil Nadu.

Source: Tamil Nadu state board.

Q.8) The term 'Gavishthi' used in Rig veda is related to which of the following?

- a) Barley
- b) War
- c) Wheat
- d) Land

ANS: B

Explanation: Cattle rearing were an important economic activity for the Aryans, although they practiced agriculture. Cattle were considered wealth.

- The term for war in the Rig Veda was gavishthi which means search for cows (which is the contemporary term (goshti) for factions as well).
- The donations to the priests were mainly cows and women slaves but not land, which reveals the importance of pastoralism. There was no private property in land.

Source: Tamil Nadu state board.

Q.9) Consider the following pairs:

1. Senani - chief of the army
2. Bali - war
3. Purohita - governor

Which of the pair/pairs given above is/are correctly matched?

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

ANS: A

Explanation: The polity of the Rig Vedic period was that of a tribal society. The chief of the tribe was the main political head and he was called rajan.

- The purohita or priest offered advice to the king. Vedic priests advised the kings, inspired them and praised their deeds. In turn they received rewards for their services.
- Senani was the chief of army.
- There is no evidence of tax collecting officers. Perhaps people made voluntary contribution called bali to the king. Some scholars say that bali was an imposed tax, and not voluntary.
- There is no reference to the administration of justice.

Source: Tamil Nadu state board.

Q.10) In which of the following text, kshatriyas are placed higher than brahamans?

- a) Panchavimsan Brahamana
- b) Satapatha Brahamana
- c) Manduka Upanishad
- d) Raghuvamsa

ANS: A

Explanation: In later Vedic phase, striking changes took place in the Varna System. There was an increase in the privileges of the two higher classes, the Brahmanas and the Kshatriyas at the cost of the Vaisyas and Sudras.

- In the Panchavimsa Brahamana, the Kshatriya is placed first, higher than the Brahamana but in the Satapatha Brahamana, the Brahamana is placed higher than Kshatriya.
- In later Vedic society the importance of the purohita (priest) is stressed, as mentioned in the Vedic texts.
- The Kshatriyas challenged Brahmanical supremacy and their exclusive privilege of entering the asramas, a regulated four stage life namely brahmacharya, grihastha, vanaprastha and sanyasa.
- The outcome of this was the birth of Jainism, Buddhism and Ajivakam.

Source: Tamil Nadu state board.

Revision

Q.1) Which of the following product (s) is/are come (s) under the purview of e-waste management rules 2016?

1. Personal Computers
2. Refrigerators
3. Solar e-waste

Select the correct answer using the codes given below:

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

ANS: B

Explanation: E-waste (Management) Rules, 2016, enacted since October 1, 2017.

- Over 21 products (Schedule-I) were included under the purview of the rule.
- The rule also extended its purview to components or consumables or parts or spares of Electrical and Electronic Equipment (EEE), along with their products.
- Currently, India's e-waste rules have no laws mandating solar cell manufacturers to recycle or dispose waste from this sector.

Some of the 21 products of Schedule 1 are Centralized data processing: Mainframes, Minicomputers, Personal Computers (Central Processing Unit with input and output devices), Cellular telephones, Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology), Refrigerator, Washing Machine and Air-conditioners excluding centralized air conditioning plants.

Source: The Hindu

Q.2) Consider the following statements regarding the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES):

1. It is an independent intergovernmental body.
2. The United Nations Environment Programme (UNEP) provides secretariat services to IPBES.
3. According to the recent IPBES report that around 1 million animal and plant species are now threatened with extinction.

Which of the statements given above are correct?

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

ANS: D

Explanation: The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is an independent intergovernmental body established by States to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

- It was established in Panama City, on 21 April 2012 by 94 Governments. It is not a United Nations body.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- However, at the request of the IPBES Plenary and with the authorization of the UNEP Governing Council in 2013, the United Nations Environment Programme (UNEP) provides secretariat services to IPBES.
- A landmark new report from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the summary of which was approved at the 7th session of the IPBES Plenary, meeting last week (29 April – 4 May) in Paris.
- The Report finds that around 1 million animal and plant species are now threatened with extinction, many within decades, more than ever before in human history.
 - To increase the policy-relevance of the Report, the assessment's authors have ranked, for the first time at this scale and based on a thorough analysis of the available evidence, the five direct drivers of change in nature with the largest relative global impacts so far. These culprits are, in descending order: (1) changes in land and sea use; (2) direct exploitation of organisms; (3) climate change; (4) pollution and (5) invasive alien species.

Source: Indian Express

Q.3) The “*Sand and Sustainability: Finding new solutions for environmental governance of global sand resources*” report is recently in news is released by which of the following?

- a) United Nations Environmental Programme (UNEP)
- b) Inter-governmental Panel for Climate Change (IPCC)
- c) Conservation International
- d) World Economic Forum

ANS: A

Explanation: The United Nations Environment Programme (UNEP) released (May 2019) a report, *Sand and Sustainability: Finding new solutions for environmental governance of global sand resources*, that highlights a problem that has largely stayed under the radar: sand consumption globally has been increasing and we are extracting it at rates exceeding natural replenishment rates.

- Sand and gravel, the report says, are the second largest natural resources extracted and traded by volume after water, but among the least regulated.
- The report notes that China and India head the list of critical hotspots for sand extraction impacts in rivers, lakes and on coastlines.
- The report suggests better spatial planning and reducing unnecessary construction — including speculative projects or those being done mainly for prestige — thereby making more efficient use of aggregates, investing in infrastructure maintenance and retrofitting rather than the demolish and rebuild cycle, embracing alternative design and construction methods, even avoiding use of cement and concrete where possible, and using green infrastructure.

Source: The Hindu

Q.4) The “Balukhand Wildlife Sanctuary and Chandaka Wildlife Sanctuary” is sometimes seen in news is located in which of the following states?

- a) Tamil Nadu
- b) Andhra Pradesh
- c) Odisha
- d) Kerala

ANS: C

Explanation: Severe Cyclone Fani rendered not only several thousand people homeless as it tore along India's east coast last week, but also dealt a body blow to wildlife and forest resources in the region.

- The scenic stretch along the tree-lined Marine Drive that bisects the Balukhand Wildlife Sanctuary adjacent to the Bay of Bengal between Puri and Konark, is now a wasteland with hardly any tree left untouched.
- "As many as 20% of the trees were uprooted, while the rest were found snapped and broken. The devastation has left around 400 spotted deer homeless".
- Apart from deer, the sanctuary, spread over an area of 87 sq km, was home to wild boar, jackals, striped hyenas, wolves and mongooses.
- In Bhubaneswar, the cyclone had uprooted decades-old trees inside the Nandankanan Zoological Park.
- Several animal enclosures too have been affected forcing authorities to shut down the zoo for an indefinite period.
- The Chandaka Wildlife Sanctuary, which is close by, has also been impacted with thousands of trees uprooted. Authorities are attempting to assess the extent of damage.
- As a result, hundreds of displaced monkeys have now entered residential colonies in the periphery of Bhubaneswar. Residents have reported cases of the simians attacking people after loss of habitat and food sources.

Source: The Hindu

Q.5) Consider the following statements regarding the "Jainism":

1. It was older than Buddhism.
2. It places heavy emphasis upon ethical conduct, personal purity for the liberation of the individual Souls.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: Jainism is a very ancient world religion with a history of over 3000 years, which originated in the Indian subcontinent, like Hinduism and Buddhism.

- Although it has some similarities with both traditions, Jainism is different from them with its own unique and distinguishing features.
- It is also older than Buddhism and is truly one of the most ancient and living religions of the world, besides Hinduism and Judaism.
- Jaina Dharma, as it is known popularly, is a truly ascetic religion which places heavy emphasis upon ethical conduct, personal purity for the liberation of the individual Souls. Jainism does not believe in a Creator God.
- It accepts the material universe as a self-existing system. Everything in it, including the individual Soul, is an aspect of matter.
- Each Soul is eternal but it has states, shapes and sizes. In the bound state (bandha) it is subject to karma and rebirth. It attains liberation only when it is able to completely get rid of karma.
- Jainism was founded by 24 Perfect Beings, known as Tirthankaras, who appeared upon earth in the past and laid the foundation for its doctrine.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- Mahavira was the last and the most popular of the Tirthankaras. Since it is a difficult and austere religion, from the earliest times, Jainism enjoyed popularity only among certain sections of Indian society, especially merchant communities.
- It is a predominantly Indian religion, with some following abroad. In this section we included information on the history, beliefs, practices, philosophy, and ethics of Jainism, and comparison with other faiths.

Source: Poonam Dahiya

Q.6) Consider the following statements regarding the “Vedas”:

1. The word ‘Veda’ signifies knowledge and they are actually providing humans about knowledge to conduct their life on Earth.
2. The Vedas were initially handed down orally by generations to generations.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: The word ‘Veda’ signifies knowledge and the texts are actually about providing humans about knowledge to conduct their entire life on earth and beyond.

- It is written in highly stylised poetic style and the language is full of symbols and myths.
- The Vedas were initially handed down orally by generations of Brahmin families but it is estimated by historians that they were compiled around 1500 BC-1000 BC.

Source: Poonam Dahiaya

Q.7) Consider the following statements regarding the “Aranyakas”:

1. The Arayankas were attached texts to the Vedas.
2. They are said to be compilations of ritualistic information on the birth and death cycles as well as the complexity of the soul.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: The Arayankas are also texts attached to the Vedas and they describe the rituals and sacrifices involved in the Vedas from various perspectives.

- They are said to be compilations of ritualistic information on the birth and death cycles as well as the complexity of the soul.
- It is argued that holy and learned men, called Munis, who preferred to dwell within the limits of the forests, taught them.

Source: Poonam Dahiaya

Q.8) According to IUCN, which of the following vulture species is/are critically endangered?

1. White-backed vulture
2. Indian Griffon vulture
3. Bearded vulture

Select the correct answer using the code given below:

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

ANS: A

Explanation: There has been a sharp decline in the population of vultures in the country which has come down from 40 million to 19,000 in a span of over three decades, the Environment Ministry told the Parliament.

- Responding to a query on the status of vultures in the country, Union Environment Minister said there are three species of critically endangered resident Gyps vultures – white-backed vulture, long-billed vulture and slender-billed vulture – whose population as per the latest figures is 6,000, 12,000 and 1,000, respectively.
- The Minister said nationwide vulture surveys are being carried out by the Bombay Natural History Society (BNHS) every four years sponsored by the Ministry of Environment and Forest Departments of various States since 1990.
- The major cause of mortality of vultures was found to be the veterinary non-steroidal anti-inflammatory drug 'Diclofenac', given to cattle in pain and inflammation.
- It said that for protection and conservation of vultures in the country, the government has also upgraded the status of White-backed, Long-billed and Slender-billed vultures from Schedule IV to Schedule I of the Wild Life (Protection) Act, 1972.

Indian Griffon vulture – Least Concerned and Bearded vulture – Near Threatened.

Source: The Hindu

Q.9) Which of the following institution (s) is/are announced/launched the “Clean Air Initiative”?

1. Climate and Clean Air Coalition.
2. World Health Organization (WHO).
3. United Nations Environment Programme (UN Environment).

Select the correct answer using the code given below:

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

ANS: D

Explanation: Ahead of the upcoming 2019 Climate Action Summit, the United Nations, the World Health Organization (WHO), the United Nations Environment Programme (UN Environment) and Climate and Clean Air Coalition announced today the “Clean Air Initiative”, calling on governments at all levels to join the Initiative.

- The “Clean Air Initiative” calls on national and sub national governments to commit to achieving air quality that is safe for citizens, and to align climate change and air pollution policies by 2030.
- According to WHO, each year, air pollution causes 7 million premature deaths, of which 600,000 are children.
- According to the World Bank, air pollution costs the global economy an estimated US\$5.11 trillion in welfare losses and in the 15 countries with the highest greenhouse gas emissions, health impacts of air pollution are estimated to cost more than 4 per cent of GDP.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF SEPTEMBER FOURTH WEEK, 2021

- Meeting the Paris Agreement on climate change, however, could save over 1 million lives a year by 2050 and yield health benefits worth an estimated US\$54.1 trillion – about twice the costs of mitigation – through reduced air pollution alone.

Source: The Hindu

Q.10) Recently researchers have found a dragon tree species for the first time in which of the following state?

- a) Kerala
- b) Tamil Nadu
- c) Arunachal Pradesh
- d) Assam

ANS: D

Explanation: Assam has added to India's botanical wealth a plant that yields dragon's blood — a bright red resin used since ancient times as medicine, body oil, varnish, incense and dye.

- A trio of researchers led by Assam forest officials has discovered *Dracaena cambodiana*, a dragon tree species in the Dongka Sarpo area of West Karbi Anglong.
- This is for the first time that a dragon tree species has been reported from India.
- *Dracaena cambodiana* is an important medicinal plant as well as an ornamental tree.
- It is a major source of dragon's blood, a precious traditional medicine in China.
- Several antifungal and antibacterial compounds, antioxidants, flavonoids, etc., have been extracted from various parts of the plant.

Source: The Hindu