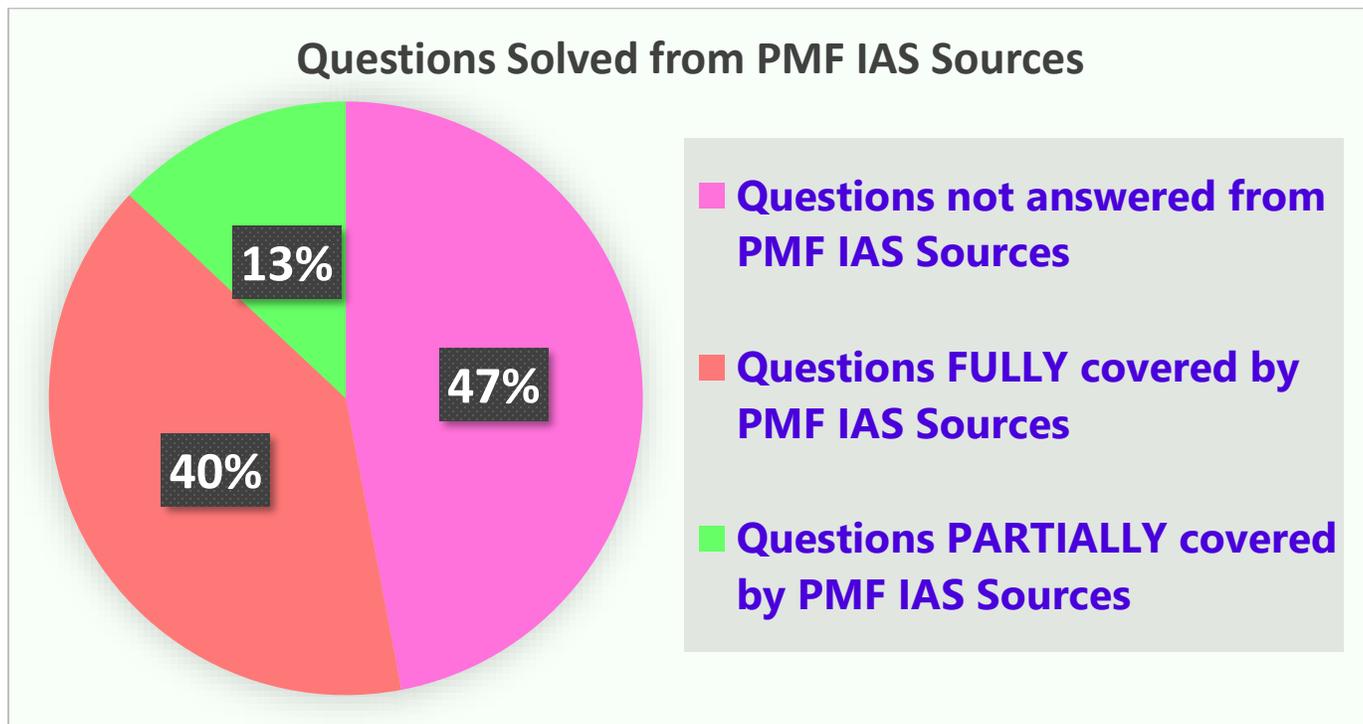


UPSC CSE Prelims 2024 – Answer Key With Explanation and PMF IAS Source Tracing

How PMF IAS Sources have fared in UPSC CSE Prelims 2024?



Out of 100 Questions, how were different PMF IAS Sources useful?

Questions Covered by PMF IAS Sources = 40 + 13 = 53 Questions

PMF IAS Sources and Number of Questions that can be solved	
PMF IAS Modern History Book	<u>Total Questions = 4</u> Easily Solved = 2 Partially Solved = 1
<u>PMF IAS Physical Geography</u>	<u>Total Questions from Geography = 17</u> Easily Solved = 13 Partially Solved = 2
<u>PMF IAS Environment</u>	Easily Solved = 4
<u>PMF IAS Current Affairs and PPQs</u>	Easily Solved = 22 Partially Solved = 3
<u>PMF IAS Test Series 2024 (13 Tests)</u>	Easily Solved = 11 (Most are common in CA) Partially Solved = 2

1) Consider the following statements:

Statement-I: The atmosphere is heated more by incoming solar radiation than by terrestrial radiation.

Statement II: Carbon dioxide and other greenhouse gases in the atmosphere are good absorbers of long-wave radiation.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is incorrect

- Only a small fraction of **short-wave radiation** emitted by the sun reaches Earth's surface.
- Most of the atmosphere is heated by the **terrestrial radiation** emitted by the Earth.

Statement 2 is correct

- **Water vapour, carbon dioxide**, and other **Greenhouse Gases** allow incoming short waves to pass but **absorb** Earth's long waves, heating the atmosphere from the ground up.
- Hence, as a mountain climber ascends, temperatures drop despite getting closer to the sun.

Answer: (d) Statement-I is incorrect, but Statement-II is correct

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography](#) Page No 295 > Lapse Rate

22.2. Lapse Rate

- **Lapse rate** (Temperature Lapse or Temperature Lapse Rate) is the **rate of change in temperature** of the atmosphere with **altitude (elevation)**.
- The lapse rate is considered **positive** when the temperature decreases with elevation, **zero** when the temperature is constant with elevation, and **negative** when the temperature increases with elevation (**temperature inversion**). Hence, the lapse rate of the troposphere below tropopause is positive, the lapse rate of the tropopause is zero, and the **lapse rate of the stratosphere is negative**.
- The fall in temperature with altitude is primarily due to the following reason:
 - ✓ **Atmosphere is mostly transparent to the incoming shortwave radiation but actively absorbs the outgoing terrestrial (longwave) radiation.**
 - ✓ **Greenhouse house** gases like CO₂, and water vapour, are the **primary absorbers of terrestrial radiation** and their concentration is highest at the earth's surface and goes on decreasing with altitude. Hence, the temperature falls with altitude (elevation).
- The **lapse rate of non-rising air (environmental lapse rate)** is highly variable, being affected by **radiation, convection, condensation** and **concentration of greenhouse gases**. It averages about **6-6.5 °C per kilometre (1 °C for every 153-165 metres)** in the lower atmosphere (troposphere).

[UPSC Prelims 2012] Normally, the temperature decreases with the increase in height from the Earth's surface, because

1. the atmosphere can be heated upwards only from the Earth's surface
2. there is more moisture in the upper atmosphere
3. the air is less dense in the upper atmosphere

2) Consider the following statements:

Statement-I: The thickness of the troposphere at the equator is much greater as compared to the poles.

Statement-II: At the equator, heat is transported to great heights by strong convectonal currents.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is correct

- The troposphere is **thicker at the equator** (16-18 km) than at the **poles** (about 8 km).
- The **tropopause** marks the upper boundary of the troposphere, separating it from the **stratosphere**.

Statement 2 is correct

- **Intense solar radiation** at the equator heats the surface, creating strong **convictional currents** that transport heat to greater heights.
- Less intense solar radiation at the poles results in weaker convection and a **thinner troposphere**.

Answer: (a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Indian Physical Geography](#) Page No 274 > Structure of The Earth's Atmosphere (Troposphere)

20.2. Structure of The Earth's Atmosphere

- The earth's atmosphere can be studied as a layered entity — each layer having its peculiar characteristics. These layers are systematically discussed below.

1. **Troposphere: 0 to 12 km (it's upper reaches varies between 8-18 km)**
2. **Stratosphere: 12 to 50 km**
3. **Mesosphere: 50 to 80 km**
4. **Thermosphere: 80 to 700 km**
5. **Exosphere: 700 to 10,000 km**

⇒ **The speed of sound in the atmosphere follows the temperature profile:** this is because the speed of sound is directly proportional to temperature as we move away from the earth. Because in an ideal gas of constant composition the speed of sound depends only on temperature and not on the gas pressure or density.

Troposphere (0 to 12 km)

- The altitude of the troposphere is **8 km at the poles** and **18 km at the equator**. The troposphere ends with **tropopause** (the topmost layer of the troposphere marked by **constant temperatures**). The thickness is greater at the equator because of the **heated air that rises to greater heights**.

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3) Consider the following:

1. Pyroclastic debris
2. Ash and dust
3. Nitrogen compounds
4. Sulphur compounds

How many of the above are products of volcanic eruptions?

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

d) All four

Explanation

- Volcanic eruptions discharge various materials, including **gases, vapours, lavas, fragmental materials, dust** and **ashes**. Vapours and gases comprise **60 to 90 per cent** of the emissions.
- Volcanic gases consist of **carbon dioxide, nitrogen oxides, sulfur dioxide, hydrogen**, and **carbon monoxide**, along with compounds like **sulfurated hydrogen, hydrochloric acid**, and **volatile chlorides** of iron, potassium, and other metals.
- Different categories of **pyroclastic materials** are thrown during the eruption, such as tephra (ash), **volcanic dust**, lapilli, volcanic bombs, etc.

Answer: (d) All four

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Indian Physical Geography Page No 139, 142 > Volcanism](#)

- A volcano is a **vent** or a **fissure (rupture)** in the earth's crust from which lava (molten rock), ash, gases, and rock fragments erupt from a magma chamber below the surface. **Volcanism** is the phenomenon of the eruption of **pyroclastics** (a hot mixture of molten rock, rock fragments, gas, and ash).

11.1. What Causes Volcanism?

- The **convection currents in the mantle** create convergent and divergent boundaries (**weak zones**). At the divergent boundary, volcanism appears at the first available opportunity through the **fault zones**. At the convergent boundary, the subduction of the denser plate creates magma at high pressure which will escape to the surface in the form of violent eruptions. In some other cases, volcanism is caused at unusual locations by **mantle plumes (hotspot volcanism)**.

- An earthquake in New Zealand (1885) caused an uplift of up to 3 metres. An earthquake in Japan (1891) caused subsidence of up to 6 metres. Earthquakes may cause a change in contours, **change in river courses**, shoreline changes, glacial surges (as in Alaska), landslides, soil creeps, mass wasting etc.

Volcanoes

- A volcano is formed when the molten rock (magma) in the earth's interior escapes through the narrow vents and fissures in the crust, accompanied by steam, gases (**hydrogen sulphide, sulphur dioxide, hydrogen chloride, carbon dioxide** etc.) and **pyroclastic material** (cloud of ash, lava fragments carried through the air, and vapour).

4) Which of the following is/are correct inference/inferences from isothermal maps in the month of January?

1. The isotherms deviate to the north over the ocean and to the south over the continent.
2. The presence of cold ocean currents, Gulf Stream and North Atlantic Drift makes the North Atlantic Ocean colder, and the isotherms bend towards the north.

Select the answer using the code given below :

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

Explanation

Statement 1 is correct

- Isotherms are **imaginary lines** on maps that connect locations with **equal temperatures** (at sea level).
- In **January** (winter in the Northern Hemisphere), **continents will be colder** than surrounding oceans.
- Due to the temperature difference between land and water, isotherms will **tend to bend northward over oceans** (warmer) and southward over continents (colder) in January.
- In January, isotherms in the Northern Hemisphere **bend poleward over warm ocean areas** and equatorward over cold ocean areas, opposite to July.

Statement 2 is incorrect

- In January, **closer-spaced isotherms** in the Northern Hemisphere indicate a steep temperature gradient, with eastern coasts having steeper gradients than western coasts.
- **Gulf Stream** and **North Atlantic Drift** are **warm currents** that cause the isotherms to bend northward over the North Atlantic Ocean, not southward.

Answer: (a) 1 only

Difficulty: Difficult

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Indian Physical Geography](#) Page No 289 > Seasonal Temperature Distribution – January

Seasonal Temperature Distribution – January

Northern Hemisphere

- During January, it is winter in the northern hemisphere & summer in the southern hemisphere.
- The western margins of continents are warmer than their eastern counterparts since the **Westerlies** are able to carry high temperatures (from the oceans) into the landmasses.

- The isotherms are **closer on the eastern margins** as the **temperature gradient is high** because of the **less moderating effect of the oceans** (westerlies flow from west to east).
- The isotherms deviate to the north over the ocean. For example, the presence of **warm Gulf Stream and North Atlantic drift** make the Northern Atlantic warmer and the isotherms show a **poleward shift** indicating that the currents are able to carry high temperatures poleward.
- The isotherms deviate equatorward over the continents (**due to continentality**) as the cold polar winds are able to penetrate southwards into the interiors.
- Lowest temperatures are recorded over northern Siberia and Greenland (**due to continentality**).

5) Which of the following countries are well known as the two largest cocoa producers in the world?

- a) Algeria and Morocco
- b) Botswana and Namibia
- c) Côte d'Ivoire and Ghana
- d) Madagascar and Mozambique

Explanation

- The top cocoa producers in the world in 2022 are **Côte d'Ivoire, Ghana, and Indonesia**.
- Côte d'Ivoire and Ghana account for more than **50%** of global cocoa production.

Answer: (c) Côte d'Ivoire and Ghana

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

6) With reference to the Himalayan rivers joining the Ganga downstream of Prayagraj from West to East, which one of the following sequences is correct?

- a) Ghaghara - Gomati - Gandak - Kosi
- b) Gomati - Ghaghara - Gandak - Kosi
- c) Ghaghara - Gomati - Kosi - Gandak
- d) Gomati - Ghaghara - Kosi - Gandak

Explanation

- **Gomati River** joins the Ganga at Ghazipur district, Uttar Pradesh
- **Ghaghara River** joins Ganga near Chapra, Bihar.
- **Gandak River** joins Ganga at near Patna, Bihar
- **Kosi River** joins the Ganga at Katihar, Bihar.

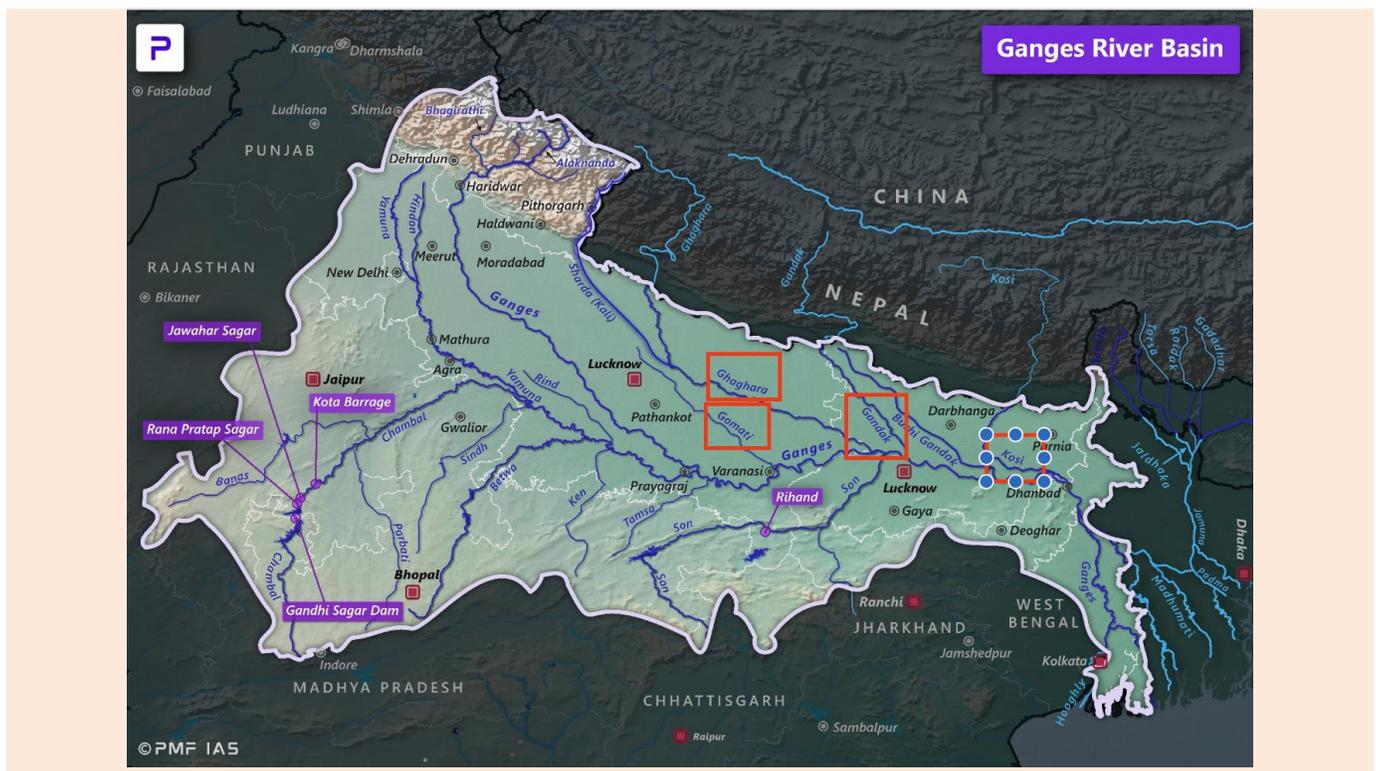
Answer: (b) Gomati - Ghaghara - Gandak - Kosi

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Indian Physical Geography](#) Page No 107 > Ganga River System (Ganga River Basin)



7) Consider the following statements:

Statement-I: Rainfall is one of the reasons for weathering of rocks.

Statement-II: Rain water contains carbon dioxide in solution.

Statement-III : Rain water contains atmospheric oxygen.

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

- a) Both Statement-II and Statement-III are correct and both of them explain Statement-I
- b) Both Statement-II and Statement-III are correct, but only one of them explains Statement-I
- c) Only one of the Statements II and III is correct and that explains Statement-I
- d) Neither Statement-II nor Statement-III is correct

Explanation

- Rainfall contributes to the weathering of rocks through various processes, including **physical, chemical,** and **biological weathering**.
- Rainwater absorbs carbon dioxide from the atmosphere, forming **carbonic acid**, which can chemically weather rocks.

⇒ Rainwater contains dissolved gases (**oxides of carbon, nitrogen and sulphur**), which result in **pH values of about 5.5 or lower**.

- Rainwater contains dissolved oxygen from the atmosphere, which can contribute to **oxidation** processes, another form of chemical weathering of rocks.

Answer: (a) Both Statement-II and Statement-III are correct and both of them explain Statement-I

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Physical Geography](#) > **Geomorphic Movements > **Exogenic Geomorphic Movements** > **Weathering****

Carbonation – Natural Solution Weathering

⇒ *Carbonation refers to reactions of carbon dioxide to give **carbonates, bicarbonates, and carbonic acid.***

- Carbonation weathering is a process in which atmospheric carbon dioxide leads to **solution weathering**. As rain falls, it dissolves small amounts of carbon dioxide from the air, forming a weak acid that can dissolve some minerals like **limestone (calcium carbonate)** (solution weathering).
- When carbonic acid reacts with limestone, it produces calcium bicarbonate, partially soluble in water (dissolution weathering).
- Caves are formed when underground water containing carbonic acid travels through blocks of limestone, dissolves out the limestone, and leaves empty pockets (caves) behind (E.g. **Karst topography**).
- Carbonation process speeds up with a decrease in temperature because **colder water holds more dissolved carbon dioxide gas**. Carbonation is, therefore, a large feature of **glacial weathering**.

Anthropogenic Solution Weathering

- Acid rain occurs when gases such as **sulphur dioxide** and **nitrogen oxides** are present in the atmosphere. These oxides react in the rainwater to produce stronger acids and can lower the pH to less than 4. [These acids can attack certain kinds of rocks](#) in much the way carbonic acid does.

⇒ **Rainfall is naturally acidic** — pH of ~5.6 (CO_2 dissolves in the rainwater producing **weak carbonic acid**).

⇒ Sulphur dioxide, SO_2 , comes from **volcanic eruptions or fossil fuels**. The conversion of metallic ores to pure metals often results in the formation of sulphur dioxide.

Hydration

⇒ **Hydration** is the **chemical addition of water** that involves the rigid attachment of H^+ and OH^- ions to the atoms and molecules of a mineral.

- When rock minerals take up water, the increased volume creates physical stresses within the rock. For example, iron oxides are converted to iron hydroxides which are larger in volume. Hydration is reversible,

Hydrolysis

⇒ **Biological hydrolysis** is a process in which a water **molecule is consumed** to affect the **separation of a larger molecule into parts**.

- In biological hydrolysis pure water reacts with **silicate** or **carbonate minerals** resulting in the dissolution of the original mineral (dissolution weathering).
- **Biological hydrolysis** is an important reaction in **controlling the amount of CO₂ in the atmosphere** and can affect climate.

Oxidation and Reduction

- In weathering, oxidation means a **combination of a mineral with oxygen to form oxides** (rusting in the case of iron) or hydroxides. **Red soils** appear red due to the presence of iron oxides. Oxidation occurs when there is ready access to the atmosphere and water. The minerals most involved in this process are iron, manganese, sulphur etc.
- When oxidised minerals are placed in an environment where oxygen is absent, **reduction** occurs. Such conditions usually exist below the water table, in stagnant water and on waterlogged ground. The red colour of iron upon reduction turns to greenish or bluish grey.

Biological Activity and Weathering

- Biological weathering is the removal of minerals from the environment due to the growth or movement of organisms.
- Living organisms contribute to both mechanical and chemical weathering.
- Lichens and mosses grow on essentially bare rock surfaces and create a more humid chemical microenvironment.
- On a larger scale, seedlings sprouting in a crevice and plant roots exert physical pressure and provide a pathway for water and chemical infiltration.
- Burrowing and wedging by organisms like earthworms, rodents etc., help expose the new surfaces to chemical attack and assist in the penetration of moisture and air.

8) Consider the following countries:

1. Finland
2. Germany
3. Norway
4. Russia

How many of the above countries have a border with the North Sea?

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

Explanation



- North Sea is a marginal sea of the **Atlantic Ocean**, that lies between **England** and **Scotland** on its west, the **Netherlands**, **Belgium**, and **France** on its south, and **Norway**, **Denmark**, and **Germany** on its east.
- North Sea is known for its rich fisheries and oil and gas reserves.

Answer: (b) Only two

Difficulty level: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-august-22-2023/#gs1-geo-eg-oceanic-resources-2023-08-22-drilling-in-the-north-sea) > <https://www.pmfias.com/current-affairs-august-22-2023/#gs1-geo-eg-oceanic-resources-2023-08-22-drilling-in-the-north-sea>

9) Consider the following information:

	Waterfall	Region	River
1.	Dhuandhar	Malwa	Narmada
2.	Hundru	Chota Nagpur	Subarnarekha
3.	Gersoppa	Western Ghats	Netravati

In how many of the above rows is the given information correctly matched?

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

d) None

Explanation

Statement 1 is incorrect

- Dhuandhar Waterfall → **Narmada River** → Jabalpur district, Madhya Pradesh (**not in Malwa region**)

Statement 2 is correct

- Hundru Waterfall → **Subarnarekha River** → Chota Nagpur Plateau, Jharkhand.

Statement 3 is incorrect

- Gersoppa (Jog) Waterfall → **Sharavati river** → Shimoga district, Karnataka (Western Ghats region)

Answer: (a) Only one

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Indian Physical Geography](#) Page No 131 > Narmada River System

PMF IAS Source 2: [PMF IAS Indian Physical Geography](#) Page No 89 > Karnataka Coastal Plain

Narmada River System

- The Narmada basin extends over **MP, Gujarat, Maharashtra, and Chhattisgarh**, which is nearly 3% of the country's total geographical area.
- The basin is bounded by **Vindhyas** on the **north**, by the **Maikala range** on the **east**, by **Satpuras** on the **south**, and by the **Arabian Sea** on the west.
- Narmada, with a length of **1,312 km**, is the **largest west-flowing river in peninsular India**. It flows through the states of Madhya Pradesh and Gujarat.
- It is the fifth-largest river in the country and the largest one in Gujarat.
- It originates from the **Amarkantak plateau** of MP. It flows **westwards** in a **rift valley** between the **Satpura** in the south and the **Vindhyan range** in the north.
- It forms a picturesque gorge in marble rocks and **Dhuandhar waterfall** near Jabalpur.
- It drains into the **Arabian Sea** through the **Gulf of Khambhat**.
- **Left bank tributaries:** Burhner, **Banjar**, Sher, Shakkar, Dudhi, **Tawa**, Ganjal, Kundi, Goi, and Karjan.
- **Right bank tributaries:** **Hiran**, Tendoni, Barna, Kolar, Man, Uri, Hatni, and Orsang.

Important Hydro-electric Projects (HEP) in the Narmada Basin

Name of HEP	States	River
Indira Sagar HEP	MP	Narmada
Sardar Sarovar HEP	Gujarat, MP, Maharashtra	Narmada
Tawa HEP	MP	Tawa

Karnataka Coastal Plain

- It extends from **Goa to Mangalore**. Marine topography is very marked along this coast.
- In some places, Western Ghats streams cascade down steep slopes, forming **waterfalls**. One notable example is the **Sharavati River**, which forms the **Gersoppa (Jog) Falls**.

Kerala (Malabar) Plain

- The Kerala Plain extends from **Mangalore to Kanyakumari**. It is wider than the Karnataka Plain and is characterised by its low-lying terrain.
- A distinctive feature of the Kerala coast is the presence of **lakes, lagoons, backwaters, and spits**.
- **Kayals** or **backwaters** are shallow lagoons or inlets of the sea that run parallel to the coastline. The largest among these is **Vembanad Lake**, which is about 75 km long and 5-10 km wide.
- The famous **Nehru Trophy Vallamkali** (boat race) is annually held in **Punnamada Kayal (Punnamada Lake)**, a southern extension of the **Vembanad Lake** in Kerala.

10) Consider the following information:

	Region	Name of the mountain range	Type of mountain
1.	Central Asia	Vosges	Fold mountain
2.	Europe	Alps	Block mountain
3.	North America	Appalachians	Fold mountain
4.	South America	Andes	Fold mountain

In how many of the above rows is the given information correctly matched ?

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

Explanation

Statement 1 is incorrect

- Vosges → France → Block mountain.

Statement 2 is incorrect

- Alps → Europe → Fold mountain.

Statement 3 is correct

- Appalachians → North America → Fold mountain.

Statement 4 is correct

- Andes → South America → Fold mountain.

Answer: (b) Only two

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Physical Geography Book Page No 133](#) > Original or Tectonic Mountains

PMF IAS Source 2: [PMFIAS-World-Geography-Europe-Static Page No 9](#) > Major Mountain Ranges of Europe

PMF IAS Source 3: [PMF IAS Physical Geography Book Page No 123](#) > Formation of Alps, Urals, Appalachians and the Atlas Mountains

PMF IAS Source 4: [PMFIAS-World-Geography-North-America-Static Page No 14](#) > Appalachian Mountains

PMF IAS Source 5: [PMFIAS-World-Geography-South-America-Static Page No 13](#) > Andes Mountains

On the Basis of Period of Origin

1) Very Old Fold Mountains

- Very old fold mountains are **more than 500 million years old**. They have **rounded features** and are of **low elevation** (due to **denudation**). E.g. **Appalachians** in North America and the **Ural Mountains** in Russia.



2) Old Fold Mountains

- The fold mountain systems belonging to the **Caledonian** and **Hercynian** mountain-building periods (earlier than 66 million years ago) that occurred **before the Tertiary Period** falls in this category.
- Old fold mountains are also called **thickening relict fold mountains** because of their **lightly rounded features** and **medium elevation**. Top layers are worn out due to erosional activity. Example: **Aravalli Range (India's oldest fold mountain system)**. The range rose in the post-Precambrian event called the **Aravalli-Delhi orogeny**.



3) Alpine or Young Fold Mountains

- Alpine fold mountains belonging to the **Tertiary period (66 million years ago to present)** can be grouped under the new fold mountains category since they originated in the Tertiary period. Examples are the **Rockies, the Andes, the Alps, the Himalayas**, etc. They are characterised by **rugged relief, imposing height** and **highly conical peaks**.



10.3. Block Mountains or Fault-Block Mountains

- **Block mountains** are created because of **faulting** on a large scale (when large areas or blocks of earth are broken and displaced vertically or horizontally). The **uplifted blocks** are termed **horsts**, and the **lowered blocks** are called **graben**. **The Great African Rift Valley (valley floor is graben), The Rhine Valley (graben) and the Vosges mountain (horst) in Europe** are examples.

There are two basic types of block mountains:

1. **Tilted block** mountains have one steep side contrasted by a gentle slope on the other side.
2. **Lifted block mountains** have a flat top and extremely steep slopes.

'Fault' in Geology

- When the earth's crust bends due to different types of forces (tensile, compressive & shearing) folding occurs, but when it cracks, faulting takes place.
- A fault is a **planar fracture** (crack) in a volume of the earth's crust, across which there has been significant **displacement of a block(s) of crust**. The faulted edges are usually very steep, e.g. the Vosges and the Black Forest mountains of the Rhineland.

11) Consider the following airports:

1. Donyi Polo Airport
2. Kushinagar International Airport
3. Vijayawada International Airport

In the recent past, which of the above have been constructed as Greenfield projects?

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

Explanation

Statement 1 is correct

- **Donyi Polo Airport** in **Itanagar** (the first greenfield Airport in Arunachal Pradesh).

Statement 2 is correct

- **Kushinagar International Airport** is an international airport (greenfield) in **Uttar Pradesh** and is part of the Central government's **UDAN regional connectivity scheme**.

Statement 2 is incorrect

- **Vijayawada International Airport** is not a greenfield project; it is an **existing airport** that has been upgraded and expanded.

Answer: (a) 1 and 2 only

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

12) With reference to "water vapour", which of the following statements is/are correct?

1. It is a gas, the amount of which decreases with altitude.
2. Its percentage is maximum at the poles.

Select the answer using the code given below:

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

Explanation

Statement 1 is correct

- The quantity of water vapour **decreases** with **increasing altitude** in the atmosphere.

Statement 2 is incorrect

- The content of water vapour **decreases polewards**. It is **maximum** in tropical areas.

Answer: (a) 1 only

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography](#) Book Page No. 296, 395 > Water Vapour

- **Lapse rate** (Temperature Lapse or Temperature Lapse Rate) is the **rate of change in temperature** of the atmosphere with **altitude (elevation)**.
- The lapse rate is considered **positive** when the temperature decreases with elevation, **zero** when the temperature is constant with elevation, and **negative** when the temperature increases with elevation (**temperature inversion**). Hence, the lapse rate of the troposphere below tropopause is positive, the lapse rate of the tropopause is zero, and the **lapse rate of the stratosphere is negative**.
- The fall in temperature with altitude is primarily due to the following reason:
 - ✓ **Atmosphere is mostly transparent to the incoming shortwave radiation** but **actively absorbs the outgoing terrestrial (longwave) radiation**.
 - ✓ **Greenhouse house** gases like CO₂, and water vapour, are the **primary absorbers of terrestrial radiation** and their concentration is highest at the earth's surface and goes on decreasing with altitude. Hence, the temperature falls with altitude (elevation).
- The **lapse rate of non-rising air (environmental lapse rate)** is highly variable, being affected by **radiation, convection, condensation** and **concentration of greenhouse gases**. It averages about **6-6.5 °C per kilometre (1 °C for every 153-165 metres)** in the lower atmosphere (troposphere).

13) Consider the following description :

1. Annual and daily range of temperatures is low.
2. Precipitation occurs throughout the year.
3. Precipitation varies between 50 cm-250 cm.

What is this type of climate?

- a) Equatorial climate
- b) China type climate
- c) Humid subtropical climate
- d) Marine West coast climate

Explanation

Statement 1 is correct

- **Low annual and daily range** of temperatures are typical characteristics of Marine West Coast climates (Cfb, British type) due to the **moderating influence** of the **ocean**.

Statement 2 is correct

- In Marine West Coast climates, precipitation occurs throughout the year (**moisture-laden air masses**). There is **no distinct dry season**, and rainfall or drizzle can occur in any month.

Statement 3 is correct

- It receives **moderate to high amounts** of precipitation, ranging from around 50 cm to 250 cm per year. The intensity is influenced by the **oceans** and the **mountain ranges**.

Answer: (d) Marine West coast climate

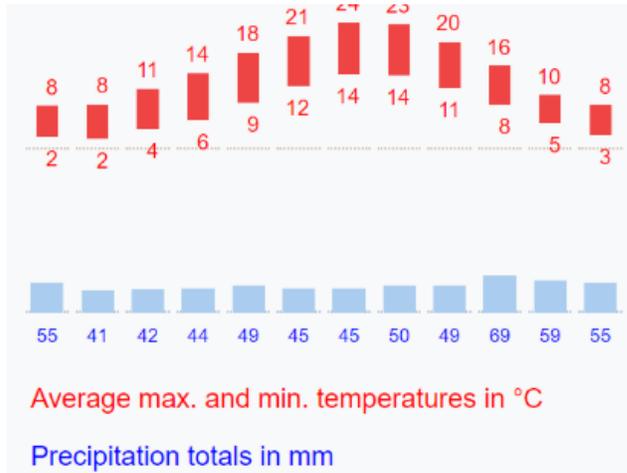
Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography Book Page No. 422](#) > Köppen–Geiger Climate Classification

5.	BSh	Hot Semi-Arid (Steppe)	Arid	Steppe	Drier extension of savannah
6.	BSk	Cold Semi-Arid (Steppe)	Arid	Steppe	Continental and/or rain shadow effect
7.	BWh	Hot Deserts	Arid	Desert	Rainfall < 25 cm High diurnal temperature range
8.	BWk	Cold Desert	Arid	Desert	
9.	Cfa	Humid Subtropical (China Type)	Temperate	No Dry Season	Rainfall throughout the year; summer maxima
10.	Cfb	Temperate Oceanic (British Type)	Temperate	No Dry Season	Rainfall throughout the year; winter maxima
11.	Cfc	Subpolar Oceanic	Temperate	No Dry Season	Very similar to Temperate Oceanic
12.	Csa	Hot-Summer Mediterranean	Temperate	Dry Summer	Hot dry summers & cool wet winters Rainfall: 35-90 cm Evergreen oaks
13.	Csb	Warm-Summer Mediterranean	Temperate	Dry Summer	
14.	Csc	Cool-Summer Mediterranean	Temperate	Dry Summer	



Temperature

- The mean annual temperatures are usually between 5 °C and 15 °C. Summers are moderately warm. Winters are **abnormally mild** because of the warming effect brought by the **warm North Atlantic Drift**. Sometimes, unusual cold spells are caused by the invasion of **cold polar continental air** from the interiors. Ports are never frozen, but frosts do occur on cold nights.

Precipitation

- Rainfall occurs throughout the year with **winter maxima (due to frontal cyclones)**. Western margins have the heaviest rainfall due to westerlies. In New Zealand, the western margins are subjected to heavy orographic rainfall whereas the eastern **Canterbury plains** receive comparatively less rainfall due to the **rain-shadow effect**.

14) With reference to "Coriolis force", which of the following statements is/are correct?

- It increases with increase in wind velocity.
- It is maximum at the poles and is absent at the equator.

Select the answer using the code given below:

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

Explanation

Statement 1 is correct

- The **magnitude** of the **Coriolis force** is determined by **wind speed**: the higher the wind speed, the greater the **deflection**.

Statement 2 is correct

- Coriolis force is **zero** at the **equator** but increases with latitude, reaching a **maximum** at the **poles**.

Answer: (c) Both 1 and 2

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography](#) Book Page No. 308, 309 > Factors Affecting Wind Movement (Coriolis Force)

- Due to the earth's rotation, winds do not cross the isobars at right angles as the pressure gradient force directs but get deflected from their original path. This deviation is the result of the earth's rotation and is called the **Coriolis effect**. Due to this effect, **winds in the northern hemisphere get deflected to the right of their path** and **those in the southern hemisphere to their left (Farrell's Law)**. This deflection force does not seem to exist until the **air is set in motion** and **increases with wind velocity** and an **increase in latitude**.

Coriolis Effect

- The Coriolis effect is the **apparent deflection of objects** (such as aeroplanes, wind, missiles, sniper bullets and ocean currents) moving in a straight path **relative** to the earth's surface.

Causes of The Coriolis Effect

- As the earth spins in a counter-clockwise direction on its axis any object flying over a long distance appears to be deflected. This occurs because as something moves freely above the earth's surface, the earth is moving east under the object at a faster speed. As the object moves away from the equator the speed of the earth's rotation decreases and the Coriolis effect (deflection) increases.
- A plane flying along the equator itself would be able to continue flying on the equator without any apparent deflection. A little to the north or south of the equator, the plane would be deflected.

⇒ *The myth about the Coriolis Effect: One of the biggest misconceptions associated with the Coriolis effect is that it causes water rotation down the drain of a sink or toilet. But such rotation is a result of the shape and orientation of the container. Coriolis effect is negligible to cause any deflection at such minor distances.*

15) On June 21 every year, which of the following latitude(s) experience(s) a sunlight of more than 12 hours?

1. Equator
2. Tropic of Cancer
3. Tropic of Capricorn
4. Arctic Circle

Select the correct answer using the code given below:

- a) 1 only

- b) 2 only
- c) 3 and 4
- d) 2 and 4

Explanation

Statement 1 is incorrect

- The **equator** experiences approximately 12 hours of sunlight and 12 hours of darkness **throughout the year**, with only slight variations due to the Earth's elliptical orbit.

Statement 2 is correct

- On **June 21** (**summer solstice** in the **Northern Hemisphere**), the Sun is **directly overhead** at solar noon at the **Tropic of Cancer**.
- All locations on the Tropic of Cancer and northward up to the **Arctic Circle** experience sunlight for more than 12 hours on this day.

Statement 3 is incorrect

- June 21 is the **winter solstice** in the **Southern Hemisphere**, and the **Tropic of Capricorn** experiences its **shortest day** of the year.

Statement 4 is correct

- During summer, the Arctic Circle experiences the **midnight sun**, with the sun remaining above the horizon for extended periods. As a result, places within the Arctic Circle have **more than 12 hours** of sunlight.

Answer: (d) 2 and 4

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography](#) Book Page No. 252 > Revolution of Earth (Solstice)

Summer Solstice

- On **21st June**, the **northern hemisphere is tilted towards the sun**, and the rays of the sun fall directly on the **Tropic of Cancer**. As a result, these areas receive more heat. Since a large portion of the northern hemisphere is getting light from the sun, it is **summer** in the regions north of the equator. The **longest day and the shortest night across the northern hemisphere** occur on the **21st of June**. This position of the earth is called the **summer solstice**. **During summer solstice the whole Arctic region falls within the 'zone of illumination' all day long.**
- At this time in the southern hemisphere, all these conditions are reversed. It is winter season there. The nights are longer than the days. **(For the southern hemisphere 21st of June is the winter solstice)**

16) One of the following regions has the world's largest tropical peatland, which holds about three years worth of global carbon emissions from fossil fuels; and the possible destruction of which can exert detrimental effect on the global climate. Which one of the following denotes that region?

- a) Amazon Basin
- b) Congo Basin
- c) Kikori Basin
- d) Rio de la Plata Basin

Explanation

Option a is incorrect

- The Amazon Basin is the **largest ecosystem and tropical forest** on the Earth.
- It covers **9 countries: Brazil (60% of the Amazon rainforest), Peru, Ecuador, Colombia, Venezuela, Bolivia, French Guiana, Suriname, and the Republic of Guyana.**

Option b is correct

- Located in Central Africa, the Congo Basin is home to the **world's second-largest rainforest.**
- It covers **six countries: Cameroon, Central African Republic, Democratic Republic of the Congo, Republic of the Congo, Equatorial Guinea, and Gabon.**
- The Congo Basin is the **world's second-largest carbon sink.**
- In 2017, the **world's largest tropical peatland** was discovered beneath the forests of the Congo Basin.

⇒ *Peatlands are **terrestrial wetland ecosystems** in which **waterlogged conditions** prevent plant material from fully decomposing.*

Option c is incorrect

- The Kikori Basin stretches for over almost 23,300 km² in **Papua New Guinea's (PNG) Southern Province.**
- The Kikori River is 445 km in length and is **Papua New Guinea's fifth largest river.**

Option d is incorrect

- The Río de la Plata drainage basin is **one of the five greatest drainage basins** in the world with special particularities to be recognized and admired.
- It is formed by the discharge of waters from five countries — **Argentina, Brazil, Uruguay, Bolivia and Paraguay** — extending over some 3,100,000 km².

Answer: (b) Congo Basin

Difficulty level: Medium

Source: Topics in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-october-26-2023/#the-three-basins) > <https://www.pmfias.com/current-affairs-october-26-2023/#the-three-basins>

PMF IAS Source 2: [PMF IAS Current Affairs PPQs](https://www.pmfias.com/ppqs-march-31-2024/) > <https://www.pmfias.com/ppqs-march-31-2024/>

17) With reference to perfluoroalkyl and polyfluoroalkyl substances (PFAS) that are used in making many consumer products, consider the following statements:

1. PFAS are found to be widespread in drinking water, food and food packaging materials.
2. PFAS are not easily degraded in the environment.
3. Persistent exposure to PFAS can lead to bioaccumulation in animal bodies.

Which of the statements given above are correct?

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

Explanation

Statement 1 is correct

- Per- and polyfluoroalkyl substances (PFAS), also known as **Forever Chemicals**, are **man-made chemicals** used to make **nonstick cookware**, water-repellent clothing, stain-resistant fabrics, cosmetics, fire-fighting forms and products that resist heat, oil, stains, grease, and water.
- PFAS have a wide range of different physical and chemical properties. They can be **gases, liquids, or solid** high-molecular-weight polymers.
- PFAS are found in **drinking water, air, soil and water at or near waste sites, food and food packaging**, household products and dust, **personal care products** in shampoo, dental floss, & cosmetics, etc.
- The Environmental Protection Agency (EPA) has established legally binding **drinking water standards** for a group of highly dangerous Per- and Polyfluorinated Substances (PFAS).

Statements 2 and 3 are correct

- Many PFAS, including perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), are a concern because they:
 - ❖ **Do not break down** in the environment,
 - ❖ Can move through soils and **contaminate drinking water sources**,
 - ❖ Build up (**bioaccumulate**) in fish and wildlife.

- Chronic exposure to PFAS has been linked to **decreased fertility, developmental effects in children, interference with body hormones, increased cholesterol levels** and **increased risk of some cancers**.

Answer: (d) 1, 2 and 3

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: PMF IAS Current Affairs > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-19-2024/#gs3-envi-degradation-per-and-polyfluoroalkyl-substances-pfas>

PMF IAS Source 2: PMF IAS Current Affairs > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-11-2024/#prelims-sci-chemistry-per-and-polyfluorinated-substances-pfas>

PMF IAS Source 3: PMF IAS Current Affairs > <https://www.pmfias.com/icmrs-dietary-guidelines-for-indians/#avoid-non-stick-cookware>

18) Consider the following:

1. Carabid beetles
2. Centipedes
3. Flies
4. Termites
5. Wasps

Parasitoid species are found in how many of the above kind of organisms?

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

Explanation

- Parasitoid species are organisms whose **larvae live as parasites** that **eventually kill their hosts**.
- They are primarily found among **insects**, particularly within certain orders.
- Many species of **flies, carabid beetles (house beetles), and wasps** are parasitoids.
- Centipedes and termites do not typically include parasitoid species.

Answer: (b) Only three

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

19) Consider the following plants:

1. Groundnut
2. Horse-gram
3. Soybean

How many of the above belong to the pea family?

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

Explanation

- The pea family, also known as the **Fabaceae or Leguminosae family**, includes a wide variety of plants commonly referred to as legumes. Legumes are vital sources of **protein** and **nitrogen fixation in soil**.
- **Groundnut, horse-gram, and soybean** belong to pea family.

Answer: (c) All three

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

20) Consider the following statements:

Statement-I: The Indian Flying Fox is placed under the "vermin" category in the Wild Life (Protection) Act, 1972.

Statement-II: The Indian Flying Fox feeds on the blood of other animals.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is correct

- Indian Flying Fox is generally considered a vermin as they **raid orchards**.
- It is placed under the "**vermin**" category in the **Wild Life (Protection) Act, 1972**.

Statement 2 is incorrect

- The Indian Flying Fox is a **frugivorous bat**, meaning it primarily feeds on fruits, nectar, and flowers.
- It does not feed on the blood of other animals.

Answer: (c) Statement-I is correct, but Statement-II is incorrect

Difficulty: Medium

Source: Topics in News

Covered in PMF IAS? No

1. **PMF IAS Source 1: [PMF IAS Environment 3rd Edition](#) > Major Species and Invasive Species > Others > Plants**

Mammal – LC – Indian Flying Fox / Greater Indian Fruit Bat

- The **Indian Flying Fox** is the **largest bat species in India**. It is **nocturnal** and feeds mainly on ripe fruits and nectar. It can **transmit several viruses to humans**, such as the **Nipah virus**.
- **Distribution:** It is **native to the Indian subcontinent**.
- **Habitat:** It lives in **colonies** on large trees in rural and urban areas.
- **Threats:** Habitat loss, electrocution, and hunting.
- **IUCN: LC | CITES: Appx II | WPA: Sch II**



Mammal – LC – Indian Fox

- Indian fox (Bengal fox) is a small fox **endemic to the Indian subcontinent**.
- **Habitat:** It prefers semi-arid, flat to undulating terrain, scrub and grassland habitats.
- **Threats:** Habitat loss, invasive species and diseases.
- **IUCN: LC | CITES: Appx III | WPA: Sch I**



Mammal – LC – Indian Giant Flying Squirrel

⇒ The Wild Life (Protection) Amendment Act, 2022, recently **removed the schedule for vermin species**. Now, the **Indian flying fox** has been **[moved to Schedule II](#)**.

21) The organisms "Cicada, Frog hopper and Pond skater" are:

- a) Birds
- b) Fish
- c) Insects
- d) Reptiles

Explanation

Option c is correct

- **Cicadas**, belonging to the Cicadidae family, are **sound-producing insects** with two pairs of wings, compound eyes, and ocelli.
- They are stout, **green or brown** in colour with **black markings**, and have four clear wings that resemble a fly.
- Cicadas can be found in **urban and rural areas** with hardwood trees. They are harmless to people, plants, and property.

Answer: (c) Insects

Difficulty level: Easy

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs PPQs](https://www.pmfias.com/ppqs-march-31-2024/#q8-envi-species-cicadas-recently-seen-in-the-news-are) > <https://www.pmfias.com/ppqs-march-31-2024/#q8-envi-species-cicadas-recently-seen-in-the-news-are>

22) Consider the following statements:

Statement-I: Many chewing gums found in the market are considered pollution. a source of environmental

Statement-II: Many chewing gums contain plastic as gum base.

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

- Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- Statement-I is correct, but Statement-II is incorrect
- Statement-I is incorrect, but Statement-II is correct

Explanation

Statements 1 and 2 are correct

- Modern chewing gum is made of **non-biodegradable hydrophobic polymers** together with artificial sweeteners and flavours.
- After chewing, most individuals throw the waste part of chewing gum everywhere, resulting in environmental trash known as '**gum pollution**'.
- Each year, chewing gum generates more than 105 tonnes of "**plastic**" garbage. Thus, the discarded non-biodegradable residue of the gum produces plastic pollution.
- Chewing gum is basically **plastic doped with flavours and colourings**. The main component of any chewing gum is the **gum base** (20–30%), which is **not edible, nor digestible**, but allows chewing, during which added flavours and sweeteners are released.

Answer (a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? NO

23) Consider the following pairs :

Country	Animals found in its natural habitat
Brazil	Indri
Indonesia	Elk
Madagascar	Bonobo

How many of the pairs given above are correctly matched ?

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

Explanation

Pair 1 is incorrect

- The **Indri** (*Indri indri*) is a large lemur species found in **Madagascar**, not Brazil.

Pair 2 is incorrect

- **Elk** (*Cervus canadensis*), the largest and most advanced subspecies of red deer, is found in **North America** and **parts of Asia**, but not naturally in Indonesia.

Pair 3 is incorrect

- The **Bonobo** (*Pan paniscus*), an ape species, is found in the **Democratic Republic of Congo** in Central Africa, not Madagascar.

Answer: (d) None

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

24) Consider the following statements regarding World Toilet Organization:

1. It is one of the agencies of the United Nations.
2. World Toilet Summit, World Toilet Day and World Toilet College are the initiatives of this organization, to inspire action to tackle the global sanitation crisis.

3. The main focus of its function is to grant funds to the least developed countries and developing countries to achieve the end of open defecation.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- The World Toilet Organisation is a **global non-profit organisation** committed to improving toilet and sanitation conditions worldwide, but it is not an agency of the United Nations.

Statement 2 is correct

- The World Toilet Organisation is known for initiatives such as the World Toilet Summit, World Toilet Day, and World Toilet College.

Statement 3 is incorrect

- The World Toilet Organisation mainly focuses on advocacy, education, and the promotion of sanitation solutions rather than directly granting funds.

Answer: (a) 2 only

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

25) Consider the following statements:

1. Lions do not have a particular breeding season.
2. Unlike most other big cats, cheetahs do not roar.
3. Unlike male lions, male leopards do not proclaim their territory by scent marking.

Which of the statements given above are correct?

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

Explanation

Statement 1 is correct

- Lions can **breed throughout the year**; they do not have a specific breeding season.

Statement 2 is correct

- Cheetahs **cannot roar**. They communicate using **vocalisations** such as purrs, chirps, and growls.

Statement 3 is incorrect

- Male leopards do **proclaim their territory by scent marking**, similar to male lions. They use urine, faeces, and glandular secretions to mark their territory.

Answer: (a) 1 and 2 only

Difficulty: Difficult

Source: Conventional

Covered in PMF IAS? NO

26) Which one of the following is the correct description of "100 Million Farmers"?

- a) It is a platform for accelerating the transition towards food and water systems that are net-zero (carbon), nature-positive and that aims to increase farmer resilience.
- b) It is an international alliance and a network of individuals and farming organisations interested in supporting and strengthening the development of the organic animal husbandry.
- c) It is a digital platform fully integrated with service providers and built on blockchain that lets buyers, sellers and third parties trade fertilizers quickly and securely.
- d) It is a platform with the mission of encouraging the farmers to form Farmer Product Organisations or Agribusiness Consortia, thus facilitating the access to global open markets to sell their products.

Explanation

Option a is correct

- **100 Million Farmers** is a platform supporting **private and public leaders** to position food and farmers as central pillars on the global climate and nature agenda, and accelerate collective action to scale climate- and **nature-friendly agricultural practices**.
- **Objective:** Accelerating the transition towards food and water systems that are **net-zero, nature-positive, and that increase farmer resilience**.

Answer (a) It is a platform for accelerating the transition towards food and water systems that are net-zero (carbon), nature-positive and that aims to increase farmer resilience.

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? NO

27) Consider the following:

1. Battery storage
2. Biomass generators
3. Fuel cells
4. Rooftop solar photovoltaic units

How many of the above are considered "Distributed Energy Resources"?

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

Explanation

- Distributed energy resources (DERs) are **small-scale** and **decentralised** energy resources where electricity is generated from sources, **often renewable energy** sources, **near the point of use** instead of centralised generation sources from power plants.
- **Battery storage, biomass generators, fuel cells, and rooftop solar photovoltaic units** are all examples of DERs.

Answer: (d) All four

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

28) Which one of the following shows a unique relationship with an insect that has coevolved with it and that is the only insect that can pollinate this tree ?

- a) Fig
- b) Mahua
- c) Sandalwood
- d) Silk cotton

Explanation

- The fig tree has a unique **coevolutionary relationship** with fig wasps.
- Their relationship is an example of **obligate mutualism**, where each species depends entirely on the other for survival and reproduction.
- The fig wasp lays its eggs inside the fig's ovary, and in the process of doing so, it pollinates the fig flowers. The larvae of the wasp develop inside the fig as they feed on its tissues.

- Each species of fig typically has its own corresponding species of fig wasp that can pollinate it.

Answer: (a) Fig

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

29) Consider the following:

1. Butterflies
2. Fish
3. Frogs

How many of the above have poisonous species among them?

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

Explanation

- Some species of butterflies are known to be poisonous to predators. For example, the **monarch butterfly** contains toxins that make it unpalatable to birds.
- **Stonefish, scorpionfish, lionfish, and pufferfish** are all well-known examples of poisonous fish.
- Many species of frogs are poisonous. For e.g., the **poison dart frog** secretes toxins through its skin.

Answer: (c) All three

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

30) Consider the following:

1. Cashew
2. Papaya
3. Red sanders

How many of the above trees are actually native to India?

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

Explanation

- **Cashew:** It is native to **Brazil**. It was introduced to India by the Portuguese.
- **Papaya:** It is native to **Central America** and **southern Mexico**. It was introduced to India and other parts of the world by Spanish and Portuguese explorers.
- **Red Sanders:** It is **endemic to the Eastern Ghats** of India.

Answer: (a) Only one

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? Yes

PMF IAS Source 1: [PMF IAS Environment 3rd Edition](#) > **Major Species and Invasive Species** > **Others** > **Plants**

PMF IAS Source 2: [PMF IAS Current Affairs](#) > <https://www.pmfias.com/current-affairs-october-13-2023/#goan-cashew-kernel>

Plant – Misc – Indian Sandalwood (VU) vs Red Sandalwood (EN) (They belong to different Genera)

- **Sandalwood (Chandan/Srigandha)** is wood from trees in the genus **Santalum**. **Indian Sandalwood (*Santalum album*)** is the **only major native sandalwood species in India**.
- **Red Sandalwood/Lal Chandan (*Pterocarpus santalinus*)**, though it has the word 'sandalwood' in its name, belongs to a different order and genus (**Pterocarpus**).

PMF IAS Environment

- **Sandalwood Spike Disease** is a significant problem for the Indian Sandalwood (*Santalum album*) compared to the Red Sandalwood/Lal Chandan (*Pterocarpus santalinus*).

Indian Sandalwood (White Sandalwood)	Red Sandalwood (Red Sanders)
<i>Scientific name: Santalum album</i>	<i>Scientific name: Pterocarpus santalinus</i>
They are small to medium-sized tropical evergreen trees	They are medium-sized tropical deciduous trees
Habitat: Dry deciduous and evergreen forests	Habitat: Tropical dry deciduous forests
They can grow up to altitudes around 700 m	The best wood grows at altitudes around 750 m
They are semi-root parasites (tap the roots of other species for water and nutrients)	They are autotrophs
They are native to southern India and SE Asia and are mainly found in the forests of Karnataka and TN	They are endemic to the southern Eastern Ghats , mainly found in the Seshachalam forests and Palakonda hills of Chittoor, YSR (Kadapa), Annamayya and Tirupati districts of AP)





They retain aroma for decades	Non-aromatic (still used in incense, perfumes, etc.)
They are slow-growing	They are very slow growing (reforestation is tough)

They grow well in alkaline soil	Can survive on a variety of soils, including degraded soils
Its wood is used as timber (strong and durable). Because of its aroma and therapeutic properties , sandalwood oil is extensively used in perfumes, incense, cosmetics, soaps , etc.	It is valued for its rich red colour and its therapeutic properties . It is used to make exquisite furniture, woodcrafts, and musical instruments in China and Japan.
Its wood is one of the most expensive in the world	Wood is scarce and a lot more expensive
IUCN Red List: VU	IUCN: EN CITES: Appx II (export is prohibited)

31) With reference to radioisotope thermoelectric generators (RTGs), consider the following statements:

1. RTGs are miniature fission reactors.
2. RTGs are used for powering the onboard systems of spacecrafts.
3. RTGs can use Plutonium-238, which is a by-product of weapons development.

Which of the statements given above are correct?

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

Explanation

Statement 1 is incorrect

- RTGs do not involve nuclear fission reactions. Instead, they utilise the heat generated from the **radioactive decay of isotopes** to generate electricity.

Statement 2 is correct

- RTGs have been used in various **space missions** to provide power to spacecraft **where solar power is not feasible** (e.g., missions beyond the orbit of Mars).

Statement 3 is correct

- Plutonium-238 (a by-product of weapons development) is a **suitable isotope for RTGs** due to its **long half-life** and the **high heat** it generates during decay.

⇒ *The half-life of an isotope is the time required for half of the atoms in a sample of the isotope to undergo radioactive decay. It tells you the rate at which the isotope decays.*

Answer: (b) 2 and 3 only

Difficulty: Difficult

Source: Conventional

Covered in PMF IAS? NO

32) Consider the following statements:

Statement-I: Giant stars live much longer than dwarf stars.

Statement-II: Compared to dwarf stars, giant stars have a greater rate of nuclear reactions.

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

- Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- Statement-I is correct, but Statement-II is incorrect
- Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is incorrect

- Giant stars, due to their greater mass and higher rates of nuclear fusion, have shorter lifespans.
- Dwarf stars, being less massive, have lower internal temperatures and pressures, resulting in slower nuclear fusion rates and longer lifespans than Giant stars.

Hint: By elimination, the answer (d) can be derived.

Statement 2 is correct

- Giant stars, being more massive, have **higher core temperatures** and **pressures** than dwarf stars, leading to **faster nuclear fusion**. This results in higher luminosity and a **quicker depletion** of their fuel.

Answer: (d) Statement-I is incorrect, but Statement-II is correct

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography Book Page No 10, 11 > Star Formation](#)

PMF IAS Source 2: <https://www.pmfias.com/star-formation-stellar-evolution-life-cycle-of-a-star/#red-giant>

33) Which one of the following is synthesised in human body that dilates blood vessels and increases blood flow?

- a) Nitric oxide
- b) Nitrous oxide
- c) Nitrogen dioxide
- d) Nitrogen pentoxide

Explanation

- **Nitric oxide:** It acts as a **vasodilator**, meaning it causes **blood vessels to relax and widen**, increasing **blood flow** to tissues throughout the body. It plays a crucial role in regulating blood pressure and overall cardiovascular health.
- **Nitrous oxide:** Also known as **laughing gas**, it is used for **anaesthesia** and **pain relief**.
- **Nitrogen dioxide:** It is an **air pollutant** and can actually **restrict blood flow**.
- **Nitrogen pentoxide:** It is a **strong oxidising agent**. Less exposure can cause **mild irritation in the upper respiratory tract** while prolonged exposure can cause **lung inflammation**.

Answer: (a) Nitric oxide

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

34) Consider the following activities:

1. Identification of narcotics on passengers at airports or in aircraft
2. Monitoring of precipitation
3. Tracking the migration of animals

In how many of the above activities can the radars be used?

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

Explanation

- Radars are typically used for detecting objects by using **radio waves** to determine the **range, angle, or velocity of objects**.

Statement 1 is incorrect

- Radars are not used for identifying narcotics. This is usually done through the use of chemical detection methods, X-rays, and other scanning technologies.

Statement 2 is correct

- Radars can detect rain, snow, sleet, and other types of precipitation.

Statement 3 is correct

- Radars can track the movement of birds, bats, and even insects over long distances.

Answer: (b) Only two

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? Yes

PMF IAS Source 1: [PMF IAS Current Affairs](#) > [Atmospheric Research Testbed \(pmfias.com\)](#)

35) Consider the following aircraft:

1. Rafael
2. MiG-29
3. Tejas MK-1

How many of the above are considered fifth generation fighter aircraft?

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

Explanation

- **Rafale:** The Dassault Rafale is a **French twin-engine**, multi-role fighter aircraft. It is classified as a **4.5-generation** fighter aircraft.
- **MiG-29:** The Mikoyan MiG-29 is a **fourth-generation** jet fighter aircraft designed in the **Soviet Union**.
- **Tejas MK-1:** The HAL Tejas is an **Indian single-engine**, multirole light fighter. It is considered to be a **fourth-generation** fighter aircraft.

Answer: (d) None

Difficulty: Difficult

Source: Conventional

Covered in PMF IAS? NO

36) In which of the following are hydrogels used?

1. Controlled drug delivery in patients
2. Mobile air-conditioning systems
3. Preparation of industrial lubricants

Select the correct answer using the code given below:

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

Explanation

- Hydrogel is a **3D network of hydrophilic polymer material** that quickly absorbs and retains water (or other fluid) **without changing its structure** because of chemical or physical cross-linking of polymer chains
- Hydrogels appear in everyday products like hair gel, toothpaste, and cosmetics. Their ability to absorb water up to 99% of their volume makes them **soft and flexible**.

Statements 1, 2 and 3 are correct

- Hydrogels are used for many medical and scientific applications, such as **drug delivery** and tissue/organ repairs.
- Hydrogels are used as **lubricants** because of their excellent anti-friction and anti-wear properties.
- Hydrogels can hold large amounts of water & could be used to **cool electronics through evaporation**.

Answer (d) 1, 2 and 3

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-14-15-2024/#about-hydrogel) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-14-15-2024/#about-hydrogel>

37) Which one of the following is the exhaust pipe emission from Fuel Cell Electric Vehicles, powered by hydrogen?

- a) Hydrogen peroxide
- b) Hydronium
- c) Oxygen

d) Water vapour

Explanation

- Fuel Cell Electric Vehicles (FCEVs) **powered by hydrogen** use **clean and efficient technology**.
- In an FCEV, **hydrogen gas** reacts with **oxygen** from the air in a fuel cell to produce electricity. This electricity powers the electric motor that propels the vehicle.
- The **only byproduct** of this reaction is **water vapour** (H₂O).
$$2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$$
- So, FCEVs emit clean water vapour instead of harmful pollutants like nitrogen oxides, carbon monoxide, and hydrocarbons typically found in exhaust from gasoline-powered vehicles.

Answer: (d) Water vapour

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? Yes

PMF IAS Source 1: [PMF IAS Current Affairs](#) > [Current Affairs September 28, 2023: First Green Hydrogen-Fuelled Bus](#)

38) Recently, the term "pumped-storage hydropower" is actually and appropriately discussed in the context of which one of the following?

- a) Irrigation of terraced crop fields
- b) Lift irrigation of cereal crops
- c) Long duration energy storage
- d) Rainwater harvesting system

Explanation

Option c is correct

- Pumped storage hydropower (PSH) is a type of **hydroelectric energy storage**.
- It is a configuration of **two water reservoirs at different elevations** that can generate power as water moves down from one to the other (discharge), passing through a turbine.
- PSH acts similarly to a **giant battery**, because it can store power and then release it when needed.

Answer (c) Long duration energy storage

Difficulty level: Easy

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](#) > <https://www.pmfias.com/renewable-energy/#pumped-storage-projects>

39) "Membrane Bioreactors" are often discussed in the context of:

- a) Assisted reproductive technologies
- b) Drug delivery nanotechnologies
- c) Vaccine production technologies
- d) Wastewater treatment technologies

Explanation

Option d is correct

- 'Membrane bioreactor' (MBR) is generally a term used to define **wastewater treatment processes** where a perm-selective membrane, eg microfiltration or ultrafiltration, is integrated with a biological process – specifically a suspended growth bioreactor.
- It is a **hybrid** of **traditional** biological wastewater treatment and **modern membrane processes** that is used in both **municipal and industrial wastewater treatment**.
- **Benefits of MBR**
 - ✓ MBR-treated water demonstrates **minimal levels of contaminants**, including phosphorus, bacteria, total suspended solids (TSS), and biochemical oxygen demand (BOD).
 - ✓ They have a **smaller footprint** compared to traditional systems.

Answer (d) Wastewater treatment technologies

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? NO

40) With reference to the Indian economy, "Collateral Borrowing and Lending Obligations" are the instruments of:

- a) Bond market
- b) Forex market
- c) Money market
- d) Stock market

Explanation

Option c is correct

- **Money market instruments** are **short-term** financing instruments which can be converted easily to cash.
- The **Collateralized Borrowing and Lending Obligation (CBLO)** market is a **money market** segment operated by the **Clearing Corporation of India Ltd (CCIL)**.

- In the CBLO market, financial entities can avail **short term loans** by providing **prescribed securities** as collateral.
- In terms of functioning and objectives, the CBLO market is almost similar to the call money market. The uniqueness of CBLO is that lenders and borrowers use **collateral** for their activities. For example, borrowers of fund have to provide collateral in the form of **government securities** (like- T-bills) and lenders will get it while giving loans.
- There is no such need of a collateral under the **call money market**.

Answer: (c) Money market

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

41) The total fertility rate in an economy is defined as:

- a) the number of children born per 1000 people in the population in a year.
- b) the number of children born to a couple in their lifetime in a given population.
- c) the birth rate minus death rate.
- d) the average number of live births a woman would have by the end of her child-bearing age.

Explanation

Option d is correct

- The total fertility rate (TFR) is the **average number of children a woman** would have at the **end of her reproductive years**, expressed as births per woman.
- **How is the Total Fertility Rate calculated?**
 - ❖ TFR is directly calculated as the **sum of age-specific fertility rates** (usually referring to women aged 15 to 49), or **five times the sum** if data are given in **five-year age groups**.
 - ❖ An age- or age-group-specific fertility rate is calculated as the **ratio of annual births to women at a given age** or age group to the population of women at the same age or age group in the same year for a given country, territory, or geographic area.

Answer (d) the average number of live births a woman would have by the end of her child-bearing age.

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-march-25-26-2024/#total-fertility-rate) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-march-25-26-2024/#total-fertility-rate>

42) Consider the following statements:

1. In India, Non-Banking Financial Companies can access the Liquidity Adjustment Facility window of the Reserve Bank of India.
2. In India, Foreign Institutional Investors can hold the Government Securities (G-Secs).
3. In India, Stock Exchanges can offer separate trading platforms for debts.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- Liquidity adjustment facility (LAF) is a monetary policy tool that **allows banks to borrow money** through **repurchase agreements** or repos.
- The LAF window is primarily used by **scheduled commercial banks** (excluding RRBs) and **Primary Dealers (PDs)** to avail liquidity or park excess funds with the RBI.
- Non-Banking Financial Companies (NBFCs) **cannot access the Liquidity Adjustment Facility (LAF) window** of the Reserve Bank of India (RBI).

Statement 2 is correct

- Government security (G-Sec) means a security created and issued by the Government for the **purpose of raising a public loan** or any other purposes.
- **Foreign Institutional Investors (FIIs) can hold Government Securities (G-Secs)** in India. Recently, Reserve Bank of India (RBI) green lighted investments in the country's **Sovereign Green Bonds (SGrBs)** by **Foreign Institutional Investors (FIIs)**.

Statement 3 is correct

- Stock exchanges in India **can offer** separate trading platforms for debts. For e.g. NSE's Electronic Debt Bidding platform (NSE-EBP).

Answer (d) 2 and 3 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/rbi-allows-fis-to-invest-in-green-bonds/) > <https://www.pmfias.com/rbi-allows-fis-to-invest-in-green-bonds/>

43) In India, which of the following can trade in Corporate Bonds and Government Securities?

1. Insurance Companies
2. Pension Funds
3. Retail Investors

Select the correct answer using the code given below:

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

Explanation

Option 1 is correct

- Insurance companies can **invest in both corporate bonds and government securities**. Investment guidelines for Insurance companies are regulated by IRDAI.

Option 2 is correct

- Pension funds can invest in **both corporate bonds and government securities** for diversification and steady income. Investment guidelines for Pension funds are prescribed by PFRDA.

Option 3 is correct

- Retail investors, too, can invest in both **corporate bonds and government securities** in India.

Answer (d) 1, 2 and 3

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? NO

44) Consider the following:

1. Exchange-Traded Funds (ETF)
2. Motor vehicles
3. Currency swap

Which of the above is/are considered financial instruments?

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

Explanation

Option 1 is correct

- ETF is a **marketable security** that **tracks a commodity, bonds, or a basket of assets** like an index fund.
- It is called an **exchange-traded fund** since it is **traded on a stock exchange** just like stocks but holds multiple underlying assets, unlike one, like a stock.
- Unlike mutual funds, an ETF **trades like a common stock** on a stock exchange and its price is subject to fluctuation throughout the day.
- The trading value of ETF depends on the **Net Asset Value (NAV) of the underlying stock** it represents.

Option 2 is incorrect

- **Financial instruments** are **assets that can be traded**, or they can also be seen as packages of capital that may be traded.
- Since **motor vehicles** cannot be traded, they are **not financial instruments**.

Option 3 is correct

- **Currency swaps** are an essential **financial instrument** utilized by banks, multinational corporations, and institutional investors.
- In a currency swap, counterparties **exchange equivalent amounts of two different currencies**, and trade back at a later specified date.
- Swaps can be used to **hedge against exchange-rate risk, speculate on currency moves, and borrow foreign exchange at lower interest rates**.

Answer (d) 1 and 3 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-december-13-2023/#gs3-ie-securities-exchange-traded-funds-etfs) > <https://www.pmfias.com/current-affairs-december-13-2023/#gs3-ie-securities-exchange-traded-funds-etfs>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/internationalization-of-rupee/) > <https://www.pmfias.com/internationalization-of-rupee/>

45) With reference to the sectors of the Indian economy, consider the following pairs:

	Economic activity	Sector
1.	Storage of agricultural produce	Secondary
2.	Dairy farm	Primary
3.	Mineral exploration	Tertiary

4.	Weaving cloth	Secondary
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How many of the pairs given above are correctly matched ?

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

Explanation

Statement 1 is incorrect

- The storage of agricultural produce is considered a part of the **tertiary sector**, as it involves the **distribution and storage of goods**.

Statement 2 is correct

- Dairy farming involves the **production of milk** and other **dairy products** and belongs to primary sector.

Statement 3 is incorrect

- Mineral exploration involves the **extraction of raw materials** from the **earth**, thus part of the primary sector.

Statement 4 is correct

- Weaving cloth is a **manufacturing process** that transforms raw materials (such as cotton or wool) into finished products (fabric), and thus, it belongs to the **secondary sector**.

Answer: (b) Only two

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS EG Industrial Locational Factor](#) > Primary, Secondary and Tertiary Sectors

- Dairy is the most advanced and efficient type of **rearing of milch animals**.
- It is **highly capital-intensive**, with costs incurred for animal sheds, fodder storage, feeding, and milking machines. Special emphasis is laid on cattle breeding, health care, and veterinary services.
- It is **highly labour-intensive** as it requires rigorous care in feeding and milking.
- There is **no offseason** during the year as in the case of crop raising.
- It is practised **near urban centres**, which offer a local market for fresh milk and dairy products.
- Transportation, refrigeration, pasteurisation, and other preservation processes have extended the storage duration of dairy products.

Collective Farming

- Collective farming, or the **Kolkhoz model**, was **introduced in the former USSR** to **improve agricultural efficiency** and **increase production for self-sufficiency**.

- It is based on **social ownership of the means of production** and **collective labour**. Farmers **pool all their resources**, such as land, livestock, and labour, while **retaining small plots for daily crop needs**.

Mining

- Two types of mining: **surface mining (open-cast mining)** and **underground mining (shaft method)**.
 - ❖ Surface mining is the **easiest and cheapest way of mining minerals that occur close to the surface**. It yields **large outputs quickly**.
 - ❖ Underground mining is used when the **ore lies deep below the surface**. In this mining, galleries radiate from vertical shafts to reach minerals, which are then extracted and transported to the surface. This method is risky - **poisonous gases, fires, floods**, and **caving** can lead to fatal accidents.
- The actual development of mining began with the **Industrial Revolution**.

Household Industries or Cottage Manufacturing

- It is the **smallest manufacturing unit** where artisans use **local raw materials** and **simple tools** to **produce everyday goods in their homes**, often with the help of **family members** or **part-time labour**.
- Finished products may be used within the household or **sold in local markets**.
- Products manufactured in this sector include foodstuffs, fabrics, mats, tools, furniture, leather goods, pottery, clay bricks, gold jewellery, etc.

Small Scale Manufacturing

- Small-scale manufacturing differs from household industries in its production techniques and location. This manufacturing uses **local raw materials**, **simple power-driven machines**, and **semi-skilled labour**. Manufacturing takes place in **workshops outside the producer's home or cottage**.
- It **provides employment** and **boosts local purchasing power**. Thus, countries like India, China, etc., have developed labour-intensive small-scale manufacturing to employ their populations.

Large Scale Manufacturing

- Large-scale manufacturing involves a **large market**, **diverse raw materials**, **enormous energy**, **specialised workers**, **advanced technology**, **assembly-line mass production**, and **large capital**.
- Based on large-scale manufacturing, the world's major industrial regions can be broadly categorised as:
 1. **Traditional large-scale industrial regions**: Concentrated in a few more developed countries
 2. **High-technology large-scale industrial regions**: Spread to less developed countries

46) Consider the following materials:

1. Agricultural residues
2. Corn grain
3. Wastewater treatment sludge
4. Wood mill waste

Which of the above can be used as feedstock for producing Sustainable Aviation Fuel?

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

Explanation

Options 1, 2, 3 and 4 are correct

- Also known as **Bio-Jet Fuel**, Sustainable Aviation Fuel (SAF) is a **carbon-reduction solution** that is available for use in aircraft and helicopters.
- It is a **"drop-in" fuel** that can be **blended up to 50% with traditional jet fuel**.

- Its **chemical and physical properties** are **similar** to conventional jet fuel.
- It can be **used in existing aircraft engines without modifications** and can be blended with conventional jet fuel, making it relatively easy to integrate into existing aviation infrastructure.
- **Feedstocks for SAF:**
 - ❖ **Corn grain**
 - ❖ Oil seeds
 - ❖ Algae
 - ❖ **Agricultural and forestry residues**
 - ❖ **Wood mill waste**
 - ❖ Municipal solid waste streams
 - ❖ Wet wastes (manures, **wastewater treatment sludge**)

Answer (c) 1, 2, 3 and 4

Difficulty level: Easy

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/sustainable-aviation-fuel/) > <https://www.pmfias.com/sustainable-aviation-fuel/>

47) With reference to physical capital in Indian economy, consider the following pairs :

	Items	Category
1	Farmer's plough	Working capital
2	Computer	Fixed capital
3	Yarn used by the weaver	Fixed capital
4	Petrol	Working capital

How many of the above pairs are correctly matched ?

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

Explanation

- **Fixed capital**, comprising **long-term assets** like buildings and machinery, forms the foundation for sustained growth while **working capital** addresses **short-term** financial needs for day-to-day operations.

Pair 1 is incorrect

- A **farmer's plough** is a tool used repeatedly over many years in agricultural production. Therefore, it is correctly categorized as **fixed capital**, not working capital.

Pair 2 is correct

- **Computers** are used over an extended period for various functions in production, education, business operations, etc. Hence, a computer is correctly categorized as **fixed capital**.

Pair 3 is incorrect

- **Yarn** is a **raw material** consumed in the production of textiles. It is typically used up in the production process and does not last beyond the completion of the product. Therefore, yarn used by a weaver is considered **working capital**, not fixed capital.

Pair 4 is correct

- **Petrol** is a **consumable resource** used up during the operation of vehicles, machinery, etc. It is generally consumed within a short period, making it an example of **working capital**.

Answer: (b) Only two

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

48) Which one of the following words/phrases is most appropriately used to denote "an interoperable network of 3D virtual worlds that can be accessed simultaneously by millions of users, who can exert property rights over virtual items"?

- a) Big data analytics
- b) Cryptography
- c) Metaverse
- d) Virtual matrix

Explanation

Option c is correct

- The metaverse refers to a future iteration of the internet that uses **virtual reality (VR)**, **augmented reality (AR)**, and **other technologies to create a persistent, shared virtual world**.
- Some key characteristics of the metaverse:
 - ❖ **Three-dimensionality:** It's envisioned as a **3D space**, unlike the current flat experience of the internet.
 - ❖ **Social interaction:** Users will be able to interact with each other in **real-time through avatars**, fostering a sense of community and presence.

- ❖ **Economic activity:** It's expected to have its own economy where users can **buy, sell, and own virtual items** using cryptocurrencies or other digital tokens.

Answer: (c) Metaverse

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

49) With reference to the rule/rules imposed by the Reserve Bank of India while treating foreign banks, consider the following statements:

1. There is no minimum capital requirement for wholly owned banking subsidiaries in India.
2. For wholly owned banking subsidiaries in India, at least 50% of the board members should be Indian nationals.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- A **foreign bank** can also open a **wholly owned subsidiary** in India on the basis of the **RBI Scheme** for Setting up of **Wholly Owned Subsidiaries by Foreign Banks in India**.
- The minimum paid-up voting equity capital for a wholly owned subsidiary is **5 billion rupees**.

Statement 2 is correct

- **Not less than 50 percent directors** should be **Indian nationals/NRIs/PIOs** subject to the condition that **one-third of the directors** are **Indian nationals resident** in India.

Answer: (b) 2 only

Difficulty: Tough

Source: Conventional

Covered in PMF IAS? NO

50) With reference to Corporate Social Responsibility (CSR) rules in India, consider the following statements:

1. CSR rules specify that expenditures that benefit the company directly or its employees will not be considered as CSR activities.

2. CSR rules do not specify minimum spending on CSR activities.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct

- In India, Corporate Social Responsibility is a **mandatory obligation** under the **Companies Act, 2013**.
- **Eligible activities under CSR:**
 - ❖ Eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation, including contribution to the **Swachh Bharat Kosh**.
 - ❖ Promoting **gender equality**, empowering women, setting up homes and **hostels for women** and orphans; setting up **old age homes**.
- **Non-permitted activities under CSR Rules:**
 - ❖ Contribution of any amount directly or indirectly to any **political party**.
 - ❖ Activities carried out for **fulfilment** of any other **statutory obligations** under any law in force in India.
 - ❖ **Activities benefitting the company directly or its employees**.

Statement 2 is incorrect

- Section 135 of the Companies Act 2013 (Act) mandates that certain companies **must allocate** at least **2% of their average net profits** from the **preceding three financial years** towards CSR activities.
- This provision applies to companies with a **net worth of Rs. 500 crores or more**, a **turnover of Rs. 1000 crores or more**, or a **net profit of Rs. 5 crores or more** during the immediately preceding financial year.

Answer (a) 1 only

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/overhauling-the-environment-social-and-governance-esg-metric/#csr-in-india) > <https://www.pmfias.com/overhauling-the-environment-social-and-governance-esg-metric/#csr-in-india>

51) Consider the following statements:

Statement-I : If the United States of America (USA) were to default on its debt, holders of US Treasury Bonds will not be able to exercise their claims to receive payment.

Statement-II: The USA Government debt is not backed by any hard assets, but only by the faith of the Government.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is incorrect

- According to the CNN website, a **debt default doesn't mean that all payments would stop** or that people would permanently lose the money they are owed.

Statement 2 is correct

- US government debt is not backed by any hard assets but only by the faith of the government.
- The authority to borrow on the **full faith** and credit of the United States is vested in Congress by the Constitution.

Answer: (d) Statement-I is incorrect, but Statement-II is correct

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

52) Consider the following statements:

Statement-I: Syndicated lending spreads the risk of borrower default across multiple lenders.

Statement-II: The syndicated loan can be a fixed amount/lump sum of funds, but cannot be a credit line.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is correct

- A **syndicated loan** is a substantial loan provided to a large borrower by **several lenders together**.

- These types of loans **allow lenders to spread the risk among others** so they **aren't liable for the full amount** in the event of a default. Thus, the **risk of borrower default** is **spread across multiple lenders**.

Statement 2 is incorrect

- Syndicated loans can **involve** a **fixed amount of funds, a credit line**, or a combination of the two.

Answer (c) Statement-I is correct, but Statement-II is incorrect

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? NO

53) Consider the following statements in respect of the digital rupee:

1. It is a sovereign currency issued by the Reserve Bank of India (RBI) in alignment with its monetary policy.
2. It appears as a liability on the RBI's balance sheet.
3. It is insured against inflation by its very design.
4. It is freely convertible against commercial bank money and cash.

Which of the statements given above are correct?

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

Explanation

Statement 1 is correct

- **Digital rupee** is a **digital form of currency** notes issued by a central bank.
- It is **sovereign currency** issued by RBI in alignment with their monetary policy.
- It Must be accepted as a medium of payment, **legal tender**, and a secure store of value by all citizens, businesses, and government entities

Statement 2 is correct

- eRupee appears as a **liability** on the **RBI's balance sheet**.

Statement 3 is incorrect

- eRupee has **intrinsic value** and is regulated by the central bank.
- eRupee will always have **same value as of physical bank currency notes** which is a legal tender issued by the central bank.

Statement 4 is correct

- eRupee is **freely convertible** against commercial bank money and cash.

Answer: (d) 1, 2 and 4

Difficulty: Medium

Source: Topics in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/cryptocurrency-and-legal-tender/) > <https://www.pmfias.com/cryptocurrency-and-legal-tender/>

54) With reference to ancient India, Gautama Buddha was generally known by which of the following epithets?

1. Nayaputta
2. Shakyamuni
3. Tathagata

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1, 2 and 3
- d) None of the above are epithets of Gautama Buddha

Explanation

- "**Nayaputta**" is associated with **Mahavira**, the 24th Tirthankara of Jainism, rather than Gautama Buddha.
- "**Shakyamuni**," meaning "**Sage of the Shakyas**," is a well-known epithet of **Gautama Buddha**, highlighting his lineage from the **Shakya clan**.
- "**Tathagata**" term can mean either 'one who has thus come' or 'one who has thus gone'. **Gautama Buddha** used the term to refer to himself after he had attained enlightenment (bodhi), and it became one of the stock epithets of a Buddha

Answer: (b) 2 and 3 only

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

55) Consider the following information:

	Archaeological Site	State	Description
1	Chandraketugarh	Odisha	Trading Port town

2	Inamgaon	Maharashtra	Chalcolithic site
3	Mangadu	Kerala	Megalithic site
4	Salihundam	Andhra Pradesh	Rock-cut cave shrines

In which of the above rows is the given information correctly matched ?

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

Explanation

Pair 1 is incorrect

- **Chandraketugarh** is a **2,500-year-old archaeological site** located near the **Bidyadhari river**, about 35 kilometres north-east of **Kolkata (West Bengal)**.
- It was once an important hub of international maritime trade and a centre of civilization from the pre-Mauryan to the Pala-Sena period.
- The site is famous for its exquisite terracotta sculptures, seals, coins and pottery, which reveal the artistic and cultural achievements of the ancient people who lived here.

Pair 2 is correct

- **Inamgaon**, archaeological site in **Maharashtra** is located on the right bank of the **Ghod River** and is seen as the regional center of the **Bhima Valley**.
- It is one of the most thoroughly excavated and well-reconstructed **Chalcolithic sites** on the Deccan plateau.

Pair 3 is correct

- **Mangadu**, in **Kerala** is an archeological site where **megaliths** are found in large numbers.
- The date of the Mangadu megaliths is approximately from 1000 B.C. to 100 B.C.

Pair 4 is incorrect

- **Salihundam**, a village Srikakulam district, **Andhra Pradesh**, is a significant **Buddhist monument** of ancient Kalinga and a major tourist attraction.
- Unlike the rock-cut caves of Ajanta and Ellora, Salihundam's stupas, viharas, and chaityas are built from bricks and stone, showcasing **different architectural methods**.
- Located on a hill on the south bank of the **Vamsadhara River**, it features **structural remains** rather than rock carvings.

Answer: (b) 2 and 3

Difficulty: Tough

Source: Conventional

Covered in PMF IAS? NO

56) Who of the following rulers of medieval India gave permission to the Portuguese to build a fort at Bhatkal?

- a) Krishnadevaraya
- b) Narasimha Saluva
- c) Muhammad Shah III
- d) Yusuf Adil Shah

Explanation

Option a is correct

- When Vasco Da Gama came to India in 1498, the **Vijayanagar Empire** (1336-1565) was the most powerful kingdom in South India.
- The **Portuguese** and the **rulers of Vijayanagar** viewed each other as major allies and signed **treaties** that helped the Portuguese build their factories.
 - ✓ In **1505**, **Francisco De Almeida** got permission from Vira Narasimha Raya, the ruler of Vijayanagar (1505-1509), to build the factory at Anjediva. However, he was unsuccessful in getting permission to build the fort at Bhatkal.
 - ✓ In **1510**, **Krishnadevaraya**, the ruler of Vijayanagar (1509-1529), permitted **Alfonso de Albuquerque** to build the factory at **Bhatkal** and **fortify it**.
- **Bhatkal**: Bhatkal was the **main port** of the **Vijayanagar Empire**, where traders from around the world sold their goods, particularly horses and weapons for sugar, pepper, spices, and high-quality white rice. It is situated on the **Arabian Sea coast in Karnataka**.

Answer: (a) Krishnadevaraya

Difficulty: Medium

Source: Conventional

Covered by PMF IAS? NO

57) With reference to revenue collection by Cornwallis, consider statements: the following

1. Under the Ryotwari Settlement of revenue collection, the peasants were exempted from revenue payment in case of bad harvests or natural calamities.
2. Under the Permanent Settlement in Bengal, if the Zamindar failed to pay his revenues to the state, on or before the fixed date, he would be removed from his Zamindari.

Which of the statements given above is/are correct?

- a) 1 only

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

Explanation

Statement 1 is incorrect

- The question is about **Lord Cornwallis**, who was the Governor-General of Bengal from **1786-93**, and the Ryotwari Settlement was introduced in 1820 in South India. Hence, the **statement 1 is irrelevant**.

Statement 2 is correct

- The Permanent Settlement (zamindari settlement) was introduced by Lord Cornwallis in 1793.
- Under the Permanent Settlement, the zamindar was required to pay his revenue on the due date, **even if the crop had failed**. According to the Sunset Law, **his lands would be sold** if payment did not come in by sunset of the specified date.
- Due to the failure of Zamindars, by 1815, nearly half of the landed property of Bengal had been transferred from the old zamindars to merchants and other moneyed classes.

Answer: (b) 2 Only

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: PMF IAS Modern Indian History Book

- **Cultivators**, who had long-standing rights to the soil and other customary rights, were reduced to mere **tenants**.

⇒ Earlier, the **zamindars** were **only collectors of revenue** and had **no ownership rights** over land.

Sunset Clause

- The **zamindar** was required to pay his revenue on the **due date, even if the crop had failed**. According to the **Sunset Law**, if payment did not come in by **sunset** of the **specified date**, his **lands** would be **sold**.

Benefits of Permanent Settlement

- For the Company:
 - ✓ **Dealing with a few zamindars** was much **easier** than lakhs of cultivators.
 - ✓ It ensured the **stability of income** required for the maintenance of the army.

Key Issues

Problem Faced by Zamindars

- The initial **fixation of revenue** was made **arbitrarily** and without consultation with the zamindars.
- The **revenue rates** were fixed so **high** that the zamindars found it difficult to pay. Anyone who failed to pay the revenue **lost his zamindari**.
- Numerous zamindaris were auctioned off by the Company, resulting in the displacement of original zamindars. By **1815**, **nearly half** of the landed property of Bengal had been transferred from the **old zamindars** to **merchants** and **other moneyed classes**.

Jotedars

- **Jotedars** were the **rich peasants**, who also controlled **local trade** as well as **money lending**. They were also called **haoladars, gantidars** or **mandals** in some places.
- Within the villages, the **power** of Jotedars was **more effective** than that of **zamindars**. They prevented zamindari officials from executing their duties and deliberately **delayed payments** of revenue to the zamindar. Their rise inevitably **weakened Zamindari authority**.
- When the estates of the zamindars were **auctioned** for failure to make revenue payments, Jotedars were often the **purchasers**.

Jama

- Estimated revenue (**revenue demand** of the village by Zamindar)

Amlah

- **An officer of the zamindar** who used to **collect the revenue**.

Problem Faced by Cultivators

58) Consider the following statements:

1. There are no parables in Upanishads.
2. Upanishads were composed earlier than the Puranas.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

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

Explanation

Statement 1 is incorrect

- The Upanishads are the **philosophical-religious texts** of Hinduism which develop and explain the fundamental tenets of the religion. They have been interpreted to mean “secret teaching” or “revealing underlying truth”.
- **Some Upanishads contain parables** like the Katha Upanishad has story of a little boy, Nachiketa – the son of Sage Vajasravasa, who meets Yama (the deity of death).

Statement 2 is correct

- Upanishads were **composed earlier than Puranas**. The Upanishads were compiled around **600 BC**. The Puranas were most likely written between the third and tenth centuries AD.

Answer (b) 2 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? NO

59) Consider the following statements :

1. India is a member of the International Grains Council.
2. A country needs to be a member of the International Grains Council for exporting or importing rice and wheat.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct

- The International Grains Council is an **intergovernmental organisation** concerned with grains trade.
- It was established in 1949 as the **International Wheat Council**, and its present name was adopted in 1995.
- **Secretariat:** London
- **Members:** Membership of the IGC consists of all the parties to the **Grains Trade Convention, 1995**. **India is a member country.**

- The IGC holds **two regular Council Sessions** each year, either in London or, by invitation, in member countries.
- Its functions are:
 - ❖ To oversee the implementation of the **Grains Trade Convention, 1995**;
 - ❖ To discuss current and prospective **grain market developments**;
 - ❖ To monitor changes in national **grain policies** and their **market implications**.
 - ❖ It services the **Food Aid Committee**, established under the Food Aid Convention 1999.
- It also engages with other international bodies like the World Trade Organization (WTO) and the Food and Agriculture Organization (FAO) to align its efforts with broader global food policy goals.

Statement 2 is incorrect

- It is **not mandatory** for a country to be a **member** of the International Grains Council **for exporting or importing rice and wheat**.

Answer (a) 1 only

Difficulty level: Tough

Source: Topic in News

Covered in PMF IAS? NO

60) Which one of the following was the latest inclusion in the Intangible Cultural Heritage List of UNESCO?

- Chhau dance
- Durga puja
- Garba dance
- Kumbh mela

Explanation

Option c is correct

- UNESCO's Convention for **Safeguarding the Intangible Cultural Heritage** was adopted in **2003** and became effective in 2006.
- It aims to protect cultural practices threatened by globalization.
- The Convention has **24 members**, elected based on fair representation and rotation and serve 4-year terms.
- It emphasizes **safeguarding traditions, knowledge, and skills** passed down through generations.
- **Intangible cultural heritage from India**
 - ❖ Kutiyattam, Sanskrit Theater - 2008
 - ❖ Tradition of Vedic Chanting - 2008
 - ❖ Ramlila, the Traditional Performance of the Ramayana - 2008

- ❖ Ramman, Religious Festival and Ritual Theatre of the Garhwal Himalayas, India - 2009
- ❖ Chhau Dance - 2010
- ❖ Kalbelia Folk Songs and Dances of Rajasthan - 2010
- ❖ Mudiyettu, Ritual Theatre and Dance Drama of Kerala - 2010
- ❖ Buddhist Chanting of Ladakh, Jammu and Kashmir - 2012
- ❖ Sankirtana, Manipur - 2013
- ❖ Traditional Brass and Copper Craft of Punjab - 2014
- ❖ Nowruz - 2016
- ❖ Yoga - 2016
- ❖ Kumbh Mela - 2017
- ❖ Durga Puja in Kolkata - 2021
- ❖ **Garba of Gujarat- 2023**

Answer (c) Garba dance

Difficulty level: Easy

Source: Conventional

Covered in PMF IAS? NO

61) Who was the Provisional President of the Constituent Assembly before Dr. Rajendra Prasad took over?

- a) C. Rajagopalachari
- b) Dr. B.R. Ambedkar
- c) T.T. Krishnamachari
- d) Dr. Sachchidananda Sinha

Explanation

Option d is correct

- The **Constituent Assembly** met for the first time on **9 December 1946**. Two hundred and seven representatives, including nine women, were present.
- Following the **French practice** of appointing the oldest member as president of the assembly, Dr **Sachchidananda Sinha** was appointed as the Provisional President of the Assembly.

Answer: (d) Dr Sachchidananda Sinha

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

62) With reference to the Government of India Act, 1935, consider the following statements:

1. It provided for the establishment of an All India Federation based on the union of the British Indian Provinces and Princely States.
2. Defence and Foreign Affairs were kept under the control of the federal legislature.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct

- In August 1935, the British Parliament passed the Government of India Act of 1935. The important provisions include:
 - ✓ **All-India Federation:** The Act proposed an **all-India federation** of **British provinces** and **princely states**.
 - ✓ **Dyarchy:** The principle of Dyarchy was introduced at the Centre.
 - ✓ The Act provided a **bicameral legislature** at the Centre

Statement 2 is incorrect

- The Act divided the power between the centre and units in three lists:
 1. **Federal list (59 subjects):** For Centre
 2. **Provincial list (54 subjects):** For Provinces
 3. **Concurrent list (36 subjects):** For both Centres and Provinces
- Residuary powers were given to the Governor-General.
- **Defence** and **foreign affairs** remained outside the control of the legislature.

Answer: (a) 1 Only

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: PMF IAS Modern Indian History Book

At Federal level

All-India Federation

- The Act proposed an **all-India federation** of **British provinces** and **princely states**. The Princely States had the **option to join the Federation**, and the **nature of the relationship** would **differ from state to state** according to the **Instrument of Accession**. However, once extended, the Instrument of Accession would be **irrevocable**.
- The federation's formation was conditional on the fulfilment of **two conditions**.
 1. The **princely states** that would **join the federation** should fill **at least 52** (half) of the 104 seats of the **Council of State**.
 2. The **aggregate population** of states in the above category should be **50 per cent** (half) of the total population of all Indian states.

Limitations

- The proposed **All India Federation did not materialise** as the **princely states did not join it**.
- In a federation, the **Constitution is supreme**. However, **in the Act**, the **supremacy** of the **British Parliament** was retained. All rights to amend, alter, or repeal the provisions were kept with the British Parliament.
- The **federal part** of the 1935 Act **never came into operation**, and the constitution of the **Central Government** in India remained largely the same as that under the **Act of 1919**.
- The **Secretary of State** for India and the **Governor-General** were the ultimate authority, and they were **above the Act**.
- **Defence** and **foreign affairs** remained **outside the control** of the **legislature**. Meanwhile, the Governor-General retained special control over other subjects.
- **No fully responsible government** at the **Centre**. The **Governor-General** was to be **appointed** by the **British government** and was **responsible to it**.

63) Which one of the following is a work attributed to playwright Bhasa?

- a) Kavyalankara
- b) Natyashastra
- c) Madhyama-vyayoga
- d) Mahabhashya

Explanation

Option a is incorrect

- Kavyalankara was written by **Bhamaha**, a Sanskrit poet of c. 7th century.

Option b is incorrect

- Natyashastra was written by **Bharata**, a Brahman sage. It deals with all aspects of classical Sanskrit theatre.

Option c is correct

- Madhyama-vyayoga, a Sanskrit play, was written by **Bhasa**, a Sanskrit dramatist from the Gupta period.

Option d is incorrect

- Mahabhashya was written by **Patanjali**, who was patronised by Pushyamitra Sunga.

Answer (c) Madhyama-vyayoga

Difficulty: Medium

Source: Conventional

Covered by PMF IAS? NO

64) Sanghabhuti, an Indian Buddhist monk, who travelled to China at the end of the fourth century AD, was the author of a commentary on:

- a) Prajnaparamita Sutra
- b) Visuddhimagga
- c) Sarvastivada Vinaya
- d) Lalitavistara

Explanation

Option c is correct

- **Sanghabhuti** was an Indian Buddhist monk. He travelled to China at the end of the 4th century AD.
- He was the **author of a commentary on the Sarvastivada Vinaya**.

Answer (c) Sarvastivada Vinaya

Difficulty: Medium

Source: Conventional

Covered by PMF IAS? NO

65) Consider the following properties included in the World Heritage List released by UNESCO:

1. Shantiniketan
2. Rani-ki-Vav
3. Sacred Ensembles of the Hoysalas
4. Mahabodhi Bodhgaya Temple Complex at

How many of the above properties were included in 2023?

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

Explanation

Option 1 is correct

- **Santiniketan**, a town located in **West Bengal's** Birbhum district, set up by Nobel laureate **Rabindranath Tagore**, made it to UNESCO's World Heritage List in **2023**.
- Santiniketan is a renowned cultural and educational institution. It comprises **Viswa Bharati University**.
- Santiniketan is the **second cultural symbol from West Bengal** to be included in the UNESCO list, following **Durga Puja** in Kolkata in UNESCO's list of Intangible Cultural Heritage of Humanity in 2021.

Option 2 is incorrect

- **Rani ki vav** is an intricately constructed **stepwell** situated in the town of Patan in Gujarat, India.
- Built in the 11th century by **Queen Udayamati** in memory of her husband King Bhimdev I, the stepwell is a magnificent example of **Maru-Gurjara architectural style**.
- The walls are adorned with over 500 principal sculptures and over a thousand minor ones.
- Rani ki Vav was declared a **UNESCO World Heritage Site** in **2014**.

Option 3 is correct

- The **Sacred Ensembles of the Hoysalas** has been inscribed on UNESCO's World Heritage List in **2023**.
- The Sacred Ensembles of the Hoysalas consist of a collection of **Hoysala temples**.
- Hoysala architecture is the building style of Hindu temples developed under the Hoysala Empire between the **11th and 14th centuries in Karnataka**.
- Hoysala architecture is influenced by the Western Chalukya architecture and is part of the **Karnataka Dravida tradition of temple architecture** in the Deccan.
- The temples include:
 - ❖ **Chennakesava Temple at Belur, Karnataka:** It was built by King Vishnuvardhana in 1117 CE to commemorate his victory over the Cholas. The temple is dedicated to Vishnu and has a magnificent image of him as Chennakesava.
 - ❖ **Hoysaleswara Temple at Halebidu, Karnataka:** It was built by King Vishnuvardhana and his queen Shantala Devi in the 12th century CE. The temple is dedicated to Shiva and has two identical shrines facing each other.
 - ❖ **Kesava Temple at Somanathapura, Karnataka:** It was built by King Narasimha III in 1268 CE. The temple is dedicated to Vishnu and has three shrines arranged in a trikuta (three-peaked) plan.

Option 4 is incorrect

- The **Mahabodhi Temple Complex** is one of the four holy sites related to the **life of the Lord Buddha**, and particularly to the **attainment of Enlightenment**.
- The first temple was built by **Emperor Ashoka** in the **3rd century B.C.**, and the present temple dates from the **5th or 6th centuries**.
- It was recognized as a UNESCO World Heritage site in **2002**.

Answer (b) Only two

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: PMF IAS Current Affairs > <https://www.pmfias.com/current-affairs-september-17-18-2023/#gs1-ac-architecture-2023-09-18-santiniketan>

PMF IAS Source 2: PMF IAS Current Affairs > <https://www.pmfias.com/current-affairs-september-19-2023/#gs1-ac-architecture-2023-09-19-hoysala-temples>

66) As per Article 368 of the Constitution of India, the Parliament may amend any provision of the Constitution by way of :

1. Addition
2. Variation
3. Repeal

Select the correct answer using the code given below:

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

Explanation

- **Article 368:** Power of Parliament to **amend** the Constitution
- Notwithstanding anything in this Constitution, Parliament may, in the exercise of its constituent power, amend any provision of this Constitution by way of **addition, variation, or repeal** in accordance with the procedure laid down in this article.

Answer (d) 1, 2 and 3

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

67) Consider the following countries:

1. Italy
2. Japan
3. Nigeria
4. South Korea
5. South Africa

Which of the above countries are frequently mentioned in the media for their low birth rates, or ageing population or declining population?

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

Explanation

- Among the given options, countries frequently mentioned in the media for their low birth rates, ageing population, or declining population are **Japan, Italy** and **South Korea**.
 - ❖ According to government statistics, the average number of children per **Italian woman** has **dropped** from 1.24 in 2022 to 1.2 in 2023. Experts say that if the country's population crisis continues, Italy's population of 59 million could fall by almost 1 million by 2030.
 - ❖ In 2023, **Japan** recorded an eighth consecutive annual decline in births, reaching a new record low.
 - ❖ As per Government of South Korea, there was **8-percent decline** in the country's fertility rate in 2023 compared to 2022. Experts caution that with South Korea's current demographic trends, where the population stands at 51 million, projections suggest it could potentially halve by 2100.

Answer: (a) 1, 2 and 4

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

68) Which of the following statements are correct in respect of a Money Bill in the Parliament?

1. Article 109 mentions special procedure in respect of Money Bills.
2. A Money Bill shall not be introduced in the Council of States.
3. The Rajya Sabha can either approve the Bill or suggest changes but cannot reject it.
4. Amendments to a Money Bill suggested by the Rajya Sabha have to be accepted by the Lok Sabha.

Select the answer using the code given below:

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

Explanation

Statement 1 is correct

- Article 109 of the Indian Constitution mentions the special procedure in respect of Money Bills.
- Article 110 of the Indian Constitution defines the Money Bill.

Statement 2 is correct

- Money Bill can only be introduced in Lok Sabha with the prior recommendation of the President.
- A Money Bill cannot be introduced in Rajya Sabha.

Statement 3 is correct

- Rajya Sabha may return a Money Bill transmitted to it with or without recommendations. It is open to Lok Sabha to accept or reject all or any of the recommendations of Rajya Sabha.

Statement 4 is incorrect

- When the Lok Sabha passes a Money Bill and sends it to the Rajya Sabha, the Rajya Sabha must return it within 14 days. If the Rajya Sabha does not return a Money Bill within 14 days, it is deemed passed by both the Houses.

Answer: (c) 1, 2 and 3

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-october-07-2023/) > <https://www.pmfias.com/current-affairs-october-07-2023/> - [gs2-polity-ic-parliament-money-bill](https://www.pmfias.com/current-affairs-october-07-2023/)

69) Which of the following is/are correctly matched in terms of equivalent rank in the three services of Indian Defence forces?

	Army	Airforce	Navy
1	Brigadier	Air Commodore	Commander
2	Major General	Air Vice Marshal	Vice Admiral
3	Major	Squadron Leader	Lieutenant Commander
4	Lieutenant Colonel	Group Captain	Captain

Select the correct answer using the code given below:

- a) 1 and 4

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

Explanation

Pair 1 is incorrect

- Brigadier (Army) is equivalent to **Air Commodore (Airforce)** and **Commodore (Navy)**.

Pair 2 is incorrect

- Major General (Army) is equivalent to **Air Vice Marshal (Airforce)** and **Rear Admiral (Navy)**.

Pair 3 is correct

- Major (Army) is equivalent to **Squadron Leader (Airforce)** and **Lieutenant Commander (Navy)**.

Pair 4 is incorrect

- Lieutenant Colonel (Army) is equivalent to **Wing Commander (Airforce)** and **Commander (Navy)**.

Answer: (d) 3 only

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

70) The North Eastern Council (NEC) was established by the North Eastern Council Act, 1971. Subsequent to the amendment of NEC Act in 2002, the Council comprises which of the following members?

1. Governor of the Constituent State
2. Chief Minister of the Constituent State
3. Three Members to be nominated by the President of India
4. The Home Minister of India

Select the correct answer using the code given below:

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

Explanation

- The **North Eastern Council (NEC)** was established by the **North Eastern Council Act of 1971**.

- It is the **nodal agency** for the economic and social development of the **North Eastern Region**. It functions under the **Ministry of Development of North Eastern Region** (DONER) of the Government of India.
- After the amendment of the **NEC Act** in December **2002**:
 - ✓ **Sikkim** was added as 8th Member State
 - ✓ NEC was mandated to function as a **statutory Regional Planning Body** for the North Eastern Region.
 - ✓ The Council comprises of:
 1. **Governors** of constituent States
 2. **Chief Ministers** of Constituent States
 3. **Three members** to be nominated by the President
 4. The **Union Home Minister** is ex-Officio Chairman

Answer: (d) 1, 2, 3 and 4

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-december-28-2023/-north-eastern-council-nec) > [https://www.pmfias.com/current-affairs-december-28-2023/ - north-eastern-council-nec](https://www.pmfias.com/current-affairs-december-28-2023/-north-eastern-council-nec)

71) How many Delimitation Commissions have been constituted by the Government of India till December 2023?

- One
- Two
- Three
- Four

Explanation

- Delimitation means the act or process of fixing the limits or boundaries of territorial constituencies in a country or province with a legislative body.
- In India, such Delimitation Commissions have been constituted four times:
 1. In 1952, under the Delimitation Commission Act 1952,
 2. In 1963, under the Delimitation Commission Act 1962,
 3. In 1973 under the Delimitation Act, of 1972
 4. In 2002, under the Delimitation Act, 2002.

Answer: (d) Four

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: [PMF IAS Current Affairs](https://www.pmfias.com/one-person-one-vote-one-value/) > <https://www.pmfias.com/one-person-one-vote-one-value/>

72) The Constitution (71st Amendment) Act, 1992, amends the Eighth Schedule to the Constitution to include which of the following languages?

1. Konkani
2. Manipuri
3. Nepali
4. Maithili

Select the correct answer using the code given below:

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

Explanation

- Amendment to the Eighth Schedule to the Constitution:
 1. **Constitution (21st Amendment) Act, 1967**: It added Sindhi in the Eighth Schedule of the Constitution.
 2. **Constitution (71st Amendment) Act, 1992**: It added Konkani, Manipuri, and Nepali in the Eighth Schedule of the Constitution.
 3. **Constitution (92nd Amendment) Act, 2003**: It added Maithili, Bodo, Dongri, and Santhali in the Eighth Schedule of the Constitution.

Answer: (a) 1, 2 and 3

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

73) Consider the following pairs:

	Party	Its Leader
1	Bharatiya Jana Sangh	Dr. Shyama Prasad Mukherjee
2	Socialist Party	C. Rajagopalachari
3	Congress for Democracy	Jagjivan Ram

4	Swatantra Party	Acharya Narendra Dev
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How many of the above are correctly matched?

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

Explanation

Pair 1 is correct

- The **Bharatiya Jana Sangh** was formed in **1951** with **Shyama Prasad Mukherjee** as its founder-president. However, its lineage can be traced back to the Rashtriya Swayamsevak Sangh (RSS) and the Hindu Mahasabha before Independence.

Pair 2 is incorrect

- In 1934, **Acharya Narendra Dev**, Jayaprakash Narayan, Ram Manohar Lohia, and others formed the **Congress Socialist Party (CSP)** within the Congress. Acharya Narendra Dev was appointed as the founding President of the Congress Socialist Party, while Jayaprakash Narayan served as the general secretary.

Pair 3 is correct

- The **Congress for Democracy** was an Indian political party founded in 1977 by Jagjivan Ram.
- It was formed after **Jagjivan Ram**, Hemvati Nandan Bahuguna, and Nandini Satpathy left the Indian National Congress of Indira Gandhi and denounced her rule during the Indian Emergency.
- The party contested the 1977 Indian general election with the Janata Alliance and later merged with it.

Pair 4 is incorrect

- In August 1959, the Nagpur resolution of the Congress called for land ceilings, the state's takeover of the food grain trade, and the adoption of cooperative farming.
- In response, in 1959, **C. Rajagopalachari** formed the **Swatantra Party**. It was against land ceilings in agriculture and opposed cooperative farming and state trading.
- The Swatantra Party actively campaigned for a market economy. It wanted the government to be less involved in controlling the economy and believed that prosperity could come only through individual freedom.

Answer: Only two

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: PMF IAS Modern Indian History Book

C. Rajagopalachari (Rajaji)

- **C. Rajagopalachari** was an ardent **Gandhian** and a freedom fighter from Madras. He was **influenced by** the **Lokmanya Tilak** and accepted **Tilak** as his **mentor**.
- During the **non-cooperation**, Rajaji **gave up** his **legal practice**.
- In **1929**, Rajaji became the **secretary** of the **All-India Prohibition Sangh**. He advocated the boycott of foreign goods and urged people to **give up** the **evil habit of drinking**.
- In April 1930, Rajaji led a **salt march** from **Tiruchi to Vedaranyam** and emerged as a hero of **Vedaranyam Satyagraha**.
- In **1937**, Rajagopalachari assumed the office of the **Prime Minister** of the Madras Province.
- Rajagopalachari's perspective on most of the national issues was his own. He had his own views on the **Quit India Movement** and **did not participate**.
- In **1947**, when the term of **Lord Mountbatten**, the **first Governor-General of Independent India**, ended, **Rajagopalachari** was chosen to take his place. With this, he became the **first Indian Governor-General** and **last Governor-General of India**. He continued until India became a Republic in **January 1950**.
- After the death of **Sardar Patel** in **December 1950**, Rajaji was appointed the **Home Minister**. He piloted the **Preventive Detention Act** in Parliament, which invited **critical comments** from the opposition.

- Rajaji was the **second Chief Minister of Madras** state from **1952 to 1954**.
- Rajaji was **among the first** recipients of the **Bharat Ratna in 1954**.
- **Proponent of Peace**: Rajaji **opposed** the use of **nuclear weapons** and was a **proponent** of **world peace** and disarmament. In 1962, he **led a delegation** of the **Gandhi Peace Foundation** to the **USA** to plead for a **ban on nuclear tests**.

Swatantra Party

- In **August 1959**, the **Nagpur resolution** of the Congress called for **land ceilings**, take-over of food grain trade by the state and adoption of cooperative farming.
- In response, in **1959**, **Rajaji** formed the **Swatantra Party**. It was **against land ceilings** in agriculture and **opposed cooperative farming** and state trading.
- The Swatantra Party actively campaigned for a **market economy**. It wanted the **government** to be **less involved** in **controlling the economy** and believed that prosperity could come only through individual freedom.
- The party was **critical** of the development strategy of **state intervention in the economy**, **centralised planning**, **nationalisation** and the public sector. Instead, it favoured the **expansion** of a **free private sector**.

74) Which of the following statements are correct about the Constitution of India?

1. Powers of the Municipalities are given in Part IX A of the Constitution.
2. Emergency provisions are given in Part XVIII of the Constitution.
3. Provisions related to the amendment of the Constitution are given in Part XX of the Constitution.

Select the answer using the code given below :

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

Answer: (d) 1, 2 and 3

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

75) Which one of the following statements is correct as per the Constitution of India?

- a) Inter-State trade and commerce is a State subject under the State List.
- b) Inter-State migration is a State subject under the State List.
- c) Inter-State quarantine is a Union subject under the Union List.
- d) Corporation tax is a State subject under the State List.

Explanation

- The **Seventh Schedule** of the Constitution of India specifies the allocation of powers and functions between the Union and the State legislatures. It has three lists:
 1. **List I:** Union List
 2. **List II:** State List
 3. **List III:** Concurrent List
- Union list has many subjects, including the following:
 - ✓ Inter-State trade and commerce.
 - ✓ Inter-State migration
 - ✓ **Inter-State quarantine**
 - ✓ Corporation tax

Answer: (c) Inter-State quarantine is a Union subject under the Union List.

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? NO

76) Under which of the following Articles of the Constitution of India, has the Supreme Court of India placed the Right to Privacy ?

- a) Article 15
- b) Article 16
- c) Article 19
- d) Article 21

Explanation

- **Article 21 of IC: Protection of life and personal liberty:** A person cannot be deprived of his life or personal liberty except according to the procedure established by law.
- From time to time, the Supreme Court has expanded the scope of Article 21. Now the following rights are included under Article 21:
 - ✓ **Right to privacy**
 - ✓ Right to **go abroad**
 - ✓ Right to **shelter**
 - ✓ Right against solitary confinement
 - ✓ Right to social justice and economic empowerment
 - ✓ Right against handcuffing
 - ✓ Right against custodial death
 - ✓ Right against delayed execution
 - ✓ Doctors' assistance
 - ✓ Right against public hanging
 - ✓ Protection of cultural heritage
 - ✓ Right to **pollution-free water and air**
 - ✓ Right of every child to a full development
 - ✓ Right to **health and medical aid**
 - ✓ Right to **education**
 - ✓ Protection of under-trials

Answer: (d) Article 21

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

77) What are the duties of the Chief of Defence Staff (CDS) as Head of the Department of Military Affairs?

1. Permanent Chairman of Chiefs of Staff Committee
2. Exercise military command over the three Service Chiefs
3. Principal Military Advisor to Defence Minister on all tri-service matters

Select the correct answer using the code given below:

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

Explanation

Statements 1 and 3 are correct

- In December 2019, the government approved the creation of the post of Chief of Defence Staff (CDS).
- The CDS also function as:
 1. **Principal Military Adviser** to the **Defence Minister**
 2. **Permanent Chairman** of **Chiefs of Staff Committee** (COSC).
 3. **Secretary** to the **department of military affairs**

Statement 2 is incorrect

- **CDS will not exercise any military command**, including over the three Service Chiefs, so as to be able to provide impartial advice to the political leadership

Answer: (d) 1 and 3 only

Difficulty: Easy

Source: Conventional

Covered by PMF IAS? YES

PMF IAS Source: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-november-05-06-2023/) > <https://www.pmfias.com/current-affairs-november-05-06-2023/> - [chief-of-defence-staff-cds](https://www.pmfias.com/current-affairs-november-05-06-2023/)

78) Operations undertaken by the Army towards upliftment of the local population in remote areas to include addressing of their basic needs is called:

- a) Operation Sankalp
- b) Operation Maitri

- c) Operation Sadbhavana
- d) Operation Madad

Explanation

Option 1 is incorrect

- The Indian Navy launched '**Operation Sankalp**' in the **Persian Gulf** and the **Gulf of Oman** to ensure the **safety and security of the Indian vessels** transiting through the Strait of Hormuz.

Option b is incorrect

- **Operation Maitri** was a rescue and **relief operation in Nepal** by the government of India and Indian armed forces in the aftermath of the April 2015 Nepal earthquake.

Option c is correct

- **Operation Sadbhavana** was launched by the **army** in 1998 in rural areas of Jammu & Kashmir where terrorists and anti-national elements had wrought havoc by large-scale destruction of government property and public assets.
- The **focus** of Operation Sadbhavana has been on **Quality Education, Women and Youth Empowerment, Infrastructure Development and Health and Veterinary Care**, etc.
- In addition, **basic needs** like 'Water Supply Schemes', 'Electrification', and 'Animal Husbandry' in far-flung areas are given priority.

Option d is incorrect

- **Operation Madad** was launched by the **Southern Naval Command** (SNC) at Kochi in 2018 to assist the state administration and undertake **disaster relief operations** due to the unprecedented flooding.

Answer (c) Operation Sadbhavana

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-01-2024/#developmental-projects) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-01-2024/#developmental-projects>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/piracy-in-middle-east-anti-piracy-act-2022/#operation-sankalp) > <https://www.pmfias.com/piracy-in-middle-east-anti-piracy-act-2022/#operation-sankalp>

79) The longest border between any two countries in the world is between :

- a) Canada and the United States of America
- b) Chile and Argentina
- c) China and India
- d) Kazakhstan and Russian Federation

Explanation

Option a is correct

- The **International Boundary** between **Canada** and the **USA** is the **longest** international border in the world, with ~8,891 kilometres from the **Pacific Ocean** in the west to the **Atlantic Ocean** in the east.

Answer: (a) Canada and the United States of America

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? NO

80) Which of the following statements about the Ethics Committee in the Lok Sabha are correct?

1. Initially it was an ad-hoc Committee.
2. Only a Member of the Lok Sabha can make a complaint relating to unethical conduct of a member of the Lok Sabha.
3. This Committee cannot take up any matter which is sub-judice.

Select the answer using the code given below :

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

Explanation

Statement 1 is correct

- The Committee of Privileges recommended the constitution of an Ethics Committee during the 13th Lok Sabha.
- In **2000**, an **ad hoc Ethics Committee** was constituted. It became a **permanent part** of the LS in **2015**.

Statement 2 is incorrect

- **Any person can complain** against a Member through another LS MP, with evidence of the alleged misconduct and an affidavit stating that the complaint is not "false, frivolous, or vexatious".
- If the **Member** himself complains, the affidavit is not needed. The **Speaker** can also refer a complaint against an MP to the Committee.
- The Committee makes a **prima facie inquiry** before examining a complaint.
- The Committee presents its report to the **Speaker**. The LS Speaker asks the House if the report should be considered.

Statement 3 is correct

- The Committee would **not go** into any **matter which is sub judice**. The Committee may, however, take up matters suo motu.

Answer (c) 1 and 3 only

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/ethics-committee/) > <https://www.pmfias.com/ethics-committee/>

81) Consider the following statements regarding 'Nari Shakti Vandan Adhiniyam':

1. Provisions will come into effect from the 18th Lok Sabha.
2. This will be in force for 15 years after becoming an Act.
3. There are provisions for the reservation of seats for Scheduled Castes Women within the quota reserved for the Scheduled Castes.

Which of the statements given above are correct?

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

Explanation

Statement 1 is incorrect

- The 128th Constitution Amendment Bill (**Nari Shakti Vandan Adhiniyam**) proposes to **introduce three new articles**:
 - ❖ Article 330A of IC
 - ❖ Article 332A of IC
 - ❖ Article 334A of IC
- It will be implemented **after the delimitation exercise is completed** based on the figures of the **first census after this constitutional amendment**.

Statement 2 is correct

- It provides the reservation of **one-third of seats in the LS and state Assemblies** for women for **fifteen years**.
- The **seats reserved** for women will be **rotated** after every delimitation exercise.

Statement 3 is correct

- There will be a **quota for SC/STs within the reserved seats** for women.

- There is **no separate quota** for women from other backward classes (**OBCs**).

Answer (c) 2 and 3 only

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-september-20-2023/#gs2-vulnerable-sections-women-2023-09-20-womens-reservation-bill) > <https://www.pmfias.com/current-affairs-september-20-2023/#gs2-vulnerable-sections-women-2023-09-20-womens-reservation-bill>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-september-19-2023/#gs2-vulnerable-sections-women-2023-09-19-womens-reservation-bill) > <https://www.pmfias.com/current-affairs-september-19-2023/#gs2-vulnerable-sections-women-2023-09-19-womens-reservation-bill>

82) Which of the following statements about Exercise Mitra Shakti-2023' are correct?

1. This was a joint military exercise between India and Bangladesh.
2. It commenced in Aundh (Pune).
3. Joint response during counter-terrorism operations was a goal of this operation.
4. Indian Air Force was a part of this exercise.

Select the answer using the code given below :

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

Explanation

Statement 1 is incorrect

- Exercise Mitra Shakti is a Joint Military exercise between **India** and **Sri Lanka**.

Statement 2 is correct

- The 9th edition of the "**Exercise Mitra Shakti 2023**" began in **Pune**.

Statement 3 is correct

- The Scope of the exercise includes synergising **joint responses during counter-terrorist operations**.

Statement 4 is correct

- The **participation** of the two **Air Forces** made the ninth 'Mitra Shakti' the first bilateral and bi-service exercise between the two countries.

Answer (d) 2, 3 and 4

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-november-17-2023/#prelims-ir-military-exercise-mitra-shakti) > <https://www.pmfias.com/current-affairs-november-17-2023/#prelims-ir-military-exercise-mitra-shakti>

83) A Writ of Prohibition is an order issued by the Supreme Court or High Courts to:

- a) a government officer prohibiting him from taking a particular action.
- b) the Parliament/Legislative Assembly to pass a law on Prohibition.
- c) the lower court prohibiting continuation of proceedings in a case.
- d) the Government prohibiting it from following an unconstitutional policy.

Explanation

Option c is correct

- The **Writ of Prohibition** is a legal term that implies 'to prohibit, prevent, forbid, or restrain' and is also known as 'Stay Order'.
- Writ of Prohibition is an order issued by the **Supreme Court** or **High Courts** to the **lower court prohibiting** continuation of proceedings in a case.
- Higher court issues a writ of prohibition against the lower court to prevent it from exceeding its authority or going beyond its required jurisdiction.
- It **cannot** be enforced against **administrative agencies, statutory authorities, or private persons or enterprises**.
- It is **exclusively** applicable to **judicial** and **quasi-judicial bodies**.

Answer: (c) the lower court prohibiting continuation of proceedings in a case.

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

84) Consider the following statements:

1. It is the Governor of the State who recognizes and declares any community of that State as a Scheduled Tribe.
2. A community declared as a Scheduled Tribe in a State need not be so in another State.

Which of the statements given above is/are correct?

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

d) Neither 1 nor 2

Explanation

Statement 1 is incorrect

- The state government will have to send the latest anthropological and ethnographic reports supporting the **inclusion of a community** (e.g. Meitei) in the ST list.
- The **Tribal Affairs Ministry** will send this to the Office of the **Registrar General of India** (RGI).
- On the approval of the RGI, the file will be sent to the **National Commission for Scheduled Tribes**.
- If the **Office of the RGI** and the **NCST approve** the proposal, the Tribal Affairs Ministry prepares a Cabinet note.
- Once the Cabinet approves, the change will have to be passed by Parliament, after which the **President notifies the revised ST list**.

Statement 2 is correct

- The **list of Scheduled Tribes is State/UT specific** and a community declared as a Scheduled Tribes in a State **need not be so in another State/UT**.

Answer (b) 2 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-august-22-2023/#procedure-for-the-inclusion-of-a-community-in-the-st-list) > <https://www.pmfias.com/current-affairs-august-22-2023/#procedure-for-the-inclusion-of-a-community-in-the-st-list>

85) With reference to Union Budget, consider the following statements:

1. The Union Finance Minister on behalf of the Prime Minister Inys the Annual Financial Statement before both the Houses of Parliament.
2. At the Union level, no demand for a grant can be made except on the recommendation of the President of India.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- As mentioned in the **Article 112** of the Indian Constitution, the Union Government lays a statement of its estimated receipts and expenditure for the next financial year, which begins on April 1 and ends on March 31 in the next year.
- Article 112 says that in respect of every financial year, the **President** shall cause to be laid before both the Houses of Parliament a **statement of the estimated receipts and expenditure** of the Government of India for that year which would be referred as **annual financial statement**.

Statement 2 is correct

- **Article 113** of the Constitution requires that **any proposal** or estimate seeking **withdrawal of money** from the **Consolidated Fund of India** should be presented to the Lok Sabha in the form of a **demand for grants**.
- **Article 113 (iii)** prescribes that **no** demand for grants can be presented in the Lok Sabha without the **President of India's prior approval**.
- The demand for grants includes both **charged** and **voted expenditure**.
- Charged expenditures are considered liabilities of the government of India such as payment of interest and are not put to vote in the Lok Sabha.

Answer: (b) 2 only

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

86) Who of the following is the author of the books "The India Way" and "Why Bharat Matters"?

- Bhupender Yadav
- Nalin Mehta
- Shashi Tharoor
- Subrahmanyam Jaishankar

Explanation

Option d is correct

- **Dr. S. Jaishankar** is India's **External Affairs Minister** since May 30th, 2019.
- He is a Member of the **Upper House (Rajya Sabha)** of India's Parliament from the state of Gujarat.
- He is a recipient of the **Padma Shri award** in 2019 and has written widely acclaimed best-selling books: **The India Way: Strategies for an Uncertain World**, which was published in 2020 and **Why Bharat Matters**, which was published in 2024.

Answer: (d) Subrahmanyam Jaishankar

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

87) Consider the following pairs:

	Country	Reason for being in the news
1	Argentina	Worst economic crisis
2	Sudan	War between the country's regular army and paramilitary forces
3	Turkey	Rescinded its membership of NATO

How many of the pairs given above are correctly matched?

- a) Only one pair
- b) Only two pairs
- c) All three pairs
- d) None of the pairs

Explanation

Pair 1 is correct

- **Argentina's** annual **inflation rate** **sped past 211%** in December 2023, hitting the highest level since the early 1990s.

Pair 2 is correct

- On 15 April 2023, a **civil war** began during Ramadan between two rival factions of the Sudanese military government: the **Sudanese Armed Forces** under Abdel Fattah al-Burhan and the **paramilitary Rapid Support Forces** under the Janjaweed leader, Hemedti.

Pair 3 is incorrect

- **Turkey did not rescind its NATO membership.** It **supported Sweden's bid for NATO membership.**
- NATO is a **political and military alliance** created in the aftermath of World War II by 12 countries from Europe and North America in 1949.
- The headquarters of NATO is in **Brussels, Belgium**, while the Allied Command Operations headquarters is near Mons, Belgium.

Answer (b) Only two pairs

Difficulty level: Easy

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-17-2024/#gs2-ir-africa-sudan-crisis) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-17-2024/#gs2-ir-africa-sudan-crisis>

88) Consider the following statements:

Statement-I: Sumed pipeline is a strategic route for Persian Gulf oil and natural gas shipments to Europe.

Statement-II: Sumed pipeline connects the Red Sea with the Mediterranean Sea.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is correct

- The Suez Canal and the **SUMED Pipeline** are vital routes for transporting **Persian Gulf crude oil**, petroleum products, and liquefied natural gas (LNG) to **Europe** and **North America**.

Statement 2 is correct

- It links the **Red Sea** to the **Mediterranean Sea**.

Answer: (a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

Difficulty: Difficult

Source: Conventional

Covered in PMF IAS? NO

89) Consider the following statements:

1. The Red Sea receives very little precipitation in any form.
2. No water enters the Red Sea from rivers.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct

- The Red Sea, located in a **hot and arid region** surrounded by deserts, experiences a climate with very **low precipitation**, often less than 100 mm (4 inches) annually, due to **subtropical high-pressure systems** and the influence of surrounding deserts.

Statement 2 is correct

- The Red Sea is an **enclosed basin** with no significant river inflows.
- It is surrounded by desert with **minimal surface runoff**.

Answer: (c) Both 1 and 2

Difficulty: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source: [PMF IAS Physical Geography](#) Book Page No 517 > Horizontal Temperature Distribution (General Behaviour)

Explanation:

- More water → less annual range. Hence statement (1) is false while (2) is true.

General Behaviour

- The rate of decrease of temperature with depth is greater at the equator than at the poles. In the Arctic and Antarctic circles, the surface water temperatures are close to 0° C and so the temperature change with the depth is **very slight (ice is a very bad conductor of heat)**. Here, **only one layer of cold water exists**, which extends from the surface to the deep ocean floor.
- The surface temperature and its downward decrease is influenced by the upwelling of bottom water (e.g. near the Peruvian coast during normal years).
- In the cold Arctic and Antarctic regions, the sinking of cold water and its movement towards lower latitudes is observed.
- In equatorial regions the surface, water sometimes exhibits **lower temperature and salinity** due to high rainfall, whereas the layers below it have higher temperatures.
- The enclosed seas in both the lower and higher latitudes record **higher temperatures at the bottom**.
- The enclosed seas of low latitudes like the **Sargasso Sea**, the **Red Sea** and the **Mediterranean Sea** have high bottom temperatures due to high insolation throughout the year and lesser mixing.
- In the case of the **high latitude enclosed seas, the bottom layers of water are warmer as water of slightly higher salinity and temperature move from the outer ocean as a sub-surface current**.
- The presence of submarine barriers may lead to different temperature conditions on the two sides of the barrier. For example, at the **Strait of Bab-el-Mandeb**, the submarine barrier (sill) has a height of about 366 m. The subsurface water in the strait is at high temperature compared to water at the same level in the Indian ocean. The temperature difference is greater than nearly 20° C.

Range of Ocean Temperature

- The oceans and seas get heated and cooled slower than the land surfaces. Therefore, ocean surface temperature is **highest at 2 p.m.** and the **lowest, at 5 a.m.**
- The average diurnal or daily range of temperature is barely 1 degree in oceans and seas. The annual range of temperature is influenced by the annual variation of insolation, the nature of ocean currents and the prevailing winds.
- The maximum and the minimum temperatures in oceans are slightly delayed than those of land areas (the **maximum being in August** and the **minimum in February** (tropical cyclones occur mostly between August and October. In the **North Indian Ocean** the peak cyclone season is mostly between mid-October to mid-November **due to its shape**).
- The northern Pacific and northern Atlantic oceans (less intense prevailing winds) have a greater range of temperature than their southern parts (more extensive ocean currents).

90) According to the Environmental Protection Agency (EPA), which one of the following is the largest source of sulphur dioxide emissions?

- a) Locomotives using fossil fuels
- b) Ships using fossil fuels
- c) Extraction of metals from ores
- d) Power plants using fossil fuels

Explanation

- Sulfur dioxide (SO₂) is a **colorless, reactive gas** produced when sulfur-containing fuels such as coal and oil are burned.
- According to **EPA**, the largest sources of **SO₂ emissions** are from **fossil fuel combustion at power plants (73%)** and other **industrial facilities (20%)**.
- Smaller sources of SO₂ emissions include: industrial processes such as **extracting metal from ore**; natural sources such as volcanoes; and **locomotives, ships** and other vehicles and heavy equipment that burn fuel with a high sulfur content.

Answer: (d) Power plants using fossil fuels

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

91) Consider the following statements:

Statement-I: There is instability and worsening security situation in the Sahel region.

Statement-II: There have been military takeovers/coups d'état in several countries of the Sahel region in the recent past.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statements 1 and 2 are correct

- In the last decade, **terrorism, insecurity and trafficking** have characterised the Sahel region.
- **Military coups** took place in **Mali, Chad, Guinea** and **Burkina Faso**. Progress in the transition towards democracy and civil government is very slow in some cases.
- Progress in the transition towards democracy and civil government is very slow in some cases.

Answer (a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/scramble-for-the-sahel/) > <https://www.pmfias.com/scramble-for-the-sahel/>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-august-07-2023/#gs2-ir-west-africa-2023-08-07-coup-in-niger) > <https://www.pmfias.com/current-affairs-august-07-2023/#gs2-ir-west-africa-2023-08-07-coup-in-niger>

PMF IAS Source 3: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-17-2024/#gs2-ir-africa-sudan-crisis) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-april-17-2024/#gs2-ir-africa-sudan-crisis>

PMF IAS Source 4: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-september-17-18-2023/#the-recent-coup-in-gabon) > <https://www.pmfias.com/current-affairs-september-17-18-2023/#the-recent-coup-in-gabon>

92) Consider the following statements:

Statement-I: India does not import apples from the United States of America.

Statement-II: In India, the law prohibits the import of Genetically Modified food without the approval of the competent authority.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is incorrect

- After the decision in June 2023 to settle six WTO disputes between the US and India through Mutually Agreed Solutions, India removed additional duties on eight US-origin products, such as **apples**, walnuts, and almonds. Subsequently, **imports of American apples have seen a notable rise**.

Statement 2 is correct

- In India, the **Food Safety and Standards Act, 2006**, **prohibits import**, manufacture, use or sale of GM food without **FSSAI's approval**.

Answer: (d) Statement-I is incorrect, but Statement-II is correct

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

93) With reference to the Speaker of the Lok Sabha, consider the following statements:

While any resolution for the removal of the Speaker of the Lok Sabha is under consideration

1. He/She shall not preside.
2. He/She shall not have the right to speak.
3. He/She shall not be entitled to vote on the resolution in the first instance.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct and Statements 2 and 3 are incorrect

- The Speaker of the LS is the **presiding officer** and the **highest authority** of the LS.
- The LS must choose **one of its members (MPs)** to be the Speaker as soon as possible.
- To be elected speaker, a candidate must receive a **majority of votes** from the MPs present and voting.
- **When a resolution for the removal of Speaker is under consideration:**
 - ❖ The Speaker **shall not**, though he is present, **preside**.
 - ❖ The Speaker shall **have the right to speak in**, and otherwise to take part in the proceedings of, the House of the People.
 - ❖ S/he be entitled to **vote only in the first instance** on such resolution or on any other matter during such proceedings but **not in the case of an equality of votes**.

Answer (a) 1 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? NO

94) With reference to the Indian Parliament, consider the following statements:

1. A bill pending in the Lok Sabha lapses on its dissolution.
2. A bill passed by the Lok Sabha and pending in the Rajya Sabha lapses on the dissolution of the Lok Sabha.
3. A bill in regard to which the President of India notified his/her intention to summon the Houses to a joint sitting lapses on the dissolution of the Lok Sabha.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is correct

- When the **Lok Sabha dissolves**, any bills that were introduced but **not yet passed** also **expire**.
- They must be **reintroduced** in the newly formed Lok Sabha if the government wants to continue pursuing them.

Statement 2 is correct

- A **Bill pending in Rajya Sabha** which has **not been passed by Lok Sabha** does **not lapse** on the dissolution of Lok Sabha but a **Bill which is passed by Lok Sabha** and is **pending in Rajya Sabha lapses** on the **dissolution** of Lok Sabha.

Statement 3 is incorrect

- A Bill upon which the Houses have **disagreed** and the **President** has **notified** his intention to summon a **Joint Sitting** of the Houses to consider the Bill **prior to dissolution** does **not lapse** on dissolution of Lok Sabha.

Answer: (b) 1 and 2

Difficulty: Easy

Source: Conventional

Covered in PMF IAS? NO

95) With reference to the Parliament of India, consider the following statements:

1. Prorogation of a House by the President of India does not require the advice of the Council of Ministers.
2. Prorogation of a House is generally done after the House is adjourned sine die but there is no bar to the President of India prorogating the House which is in session.
3. Dissolution of the Lok Sabha is done by the President of India who, save in exceptional circumstances, does so on the advice of the Council of Ministers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2

- c) 2 and 3
- d) 3 only

Explanation

Statement 1 is incorrect

- Under Article 85(2) of the Constitution, the **President** may **prorogue** the Houses or either House of Parliament from time to time. For prorogation of the House, the President **requires the advice of the Council of Ministers**.
- **Termination of a session** of the House by an Order by the President under the above constitutional provision is called '**prorogation**'.
- A **session** is **terminated only by prorogation** and not by adjournment.

Statement 2 is correct

- Prorogation normally **follows the adjournment of the sitting of the House sine die**. However, there is no bar on the President to prorogue the house when in session.

Statement 3 is correct

- In terms of Article 83(2) of IC, the LS:
 - ❖ Unless dissolved sooner, shall **continue for five years** from the date of its first meeting
 - ❖ **Automatically dissolves** on the **expiration of five years**.
- The LS can also be **dissolved** earlier by the **President** on the **advice of the Council of Ministers**.
- The LS can also be dissolved if the **President feels that no viable government can be formed** after the **resignation or fall of a government**.

Answer (c) 2 and 3

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-september-02-2023/#prorogation) > <https://www.pmfias.com/current-affairs-september-02-2023/#prorogation>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-september-02-2023/#dissolution-of-lok-sabha-ls) > <https://www.pmfias.com/current-affairs-september-02-2023/#dissolution-of-lok-sabha-ls>

96) Consider the following statements:

Statement-I: The European Parliament approved The Net-Zero Industry Act recently.

Statement-II: The European Union intends to achieve carbon neutrality by 2040 and therefore aims to develop all of its own clean technology by that time.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is correct

- The **European Commission approved** the **Net-Zero Industry Act (NZIA)**, as part of the Green Deal Industrial Plan.
- The Act aims to strengthen the resilience and competitiveness of net-zero technologies manufactured in the EU, to **reduce the EU's dependence on highly concentrated imports** and to make the **European energy system more secure and sustainable**.

Statement 2 is incorrect

- The EU aims to be **climate-neutral by 2050** – an economy with net-zero greenhouse gas emissions.

Answer (c) Statement-I is correct, but Statement-II is incorrect

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? NO

97) Consider the following statements:

Statement-I: Recently, Venezuela has achieved a rapid recovery from its economic crisis and succeeded in preventing its people from fleeing/emigrating to other countries.

Statement-II: Venezuela has the world's largest oil reserves.

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

- a) Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- c) Statement-I is correct, but Statement-II is incorrect
- d) Statement-I is incorrect, but Statement-II is correct

Explanation

Statement 1 is incorrect

- **People are fleeing Venezuela** in an attempt to escape widespread violence and poverty. Safety concerns, hunger and high inflation after an economic collapse have left millions extremely vulnerable.
- Since the crisis began, **nearly 8 million Venezuelans have been forced to flee** from their homes in search of safety.

Statement 2 is correct

- **Venezuela** has the **largest reserves of oil** in the world.
- Most of these reserves are located in the **Orinoco belt**.
- The **US** is the **largest producer of oil**.

Answer (d) Statement-I is incorrect, but Statement-II is correct

Difficulty level: Medium

Source: Topic in News

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-may-08-2024/#facts-related-to-the-petroleum-industry) > <https://www.pmfias.com/current-affairs-for-upsc-civil-services-exam-may-08-2024/#facts-related-to-the-petroleum-industry>

98) With reference to the Digital India Land Records Modernisation Programme, consider the following statements:

1. To implement the scheme, the Central Government provides 100% funding.
2. Under the Scheme, Cadastral Maps are digitised.
3. An initiative has been undertaken to transliterate the Records of Rights from local language to any of the languages recognized by the Constitution of India.

Which of the statements given above are correct?

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

Explanation

Statement 1 is correct

- Digital India Land Records Modernization Programme is a **Central Sector scheme**, earlier known as the **National Land Record Modernisation Programme (NLRMP)**.
- It is implemented by the **Department of Land Resources, Ministry of Rural Development**.
- The **central government provides 100% funding** for the programme.
- **Objectives:**
 1. To develop a modern, comprehensive, and transparent land record management system.
 2. To develop an **Integrated Land Information Management System (ILIMS)** across India.

Statement 2 is correct

- **Major components of the scheme:**
 - ❖ Computerization of land records.

- ❖ Computerization of Registration.
- ❖ **Digitization of Cadastral Maps.**
- ❖ Linkage of RoR (Record of Rights) with cadastral maps.
- ❖ Modern Record Room.
- ❖ Integration of Registration with Land Records.

Statement 3 is correct

• **Important components of DILRMP:**

1. **Unique Land Parcel Identification Number (ULPIN) or Bhu-Aadhaar number:** Bhu-Aadhaar is a 14-digit alphanumeric ID based on geo-coordinates assigned to a land parcel. It is a pan-India number for obtaining ownership details of a plot along with its size and geolocation.
2. **Records of Rights:** Records of Rights have been **transliterated into all the 22 scheduled languages** mentioned in the IC. It will address the problem of linguistic barriers in land governance.

Answer (d) 1, 2 and 3

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-july-19-2023/#digital-india-land-records-modernization-programme-dilrmp) > <https://www.pmfias.com/current-affairs-july-19-2023/#digital-india-land-records-modernization-programme-dilrmp>

PMF IAS Source 2: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-november-15-16-2023/#gs2-mord-schemes-digital-india-land-records-modernization-programme) > <https://www.pmfias.com/current-affairs-november-15-16-2023/#gs2-mord-schemes-digital-india-land-records-modernization-programme>

99) With reference to the 'Pradhan Mantri Surakshit Matritva Abhiyan', consider the following statements:

1. This scheme guarantees a minimum package of antenatal care services to women in their second and third trimesters of pregnancy and six months post-delivery health care service in any government health facility.
2. Under this scheme, private sector health care providers of certain specialities can volunteer to provide services at nearby government health facilities.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- The Pradhan Mantri Surakshit Matritva Abhiyan has been launched by the **Ministry of Health & Family Welfare (MoHFW)**.
- The program aims to provide assured, comprehensive and **quality antenatal care, free of cost**, universally to all pregnant women on the **9th of every month**.
- PMSMA guarantees a minimum package of antenatal care services to women in their **2nd / 3rd trimesters of pregnancy** at **designated government health facilities (not in any/all government facilities)**.

Statement 2 is correct

- The programme follows a systematic approach for **engagement with private sector** which includes motivating **private practitioners to volunteer** for the campaign developing strategies for generating awareness.

Answer (b) 2 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? NO

100) With reference to the Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM) Yojana, consider the following statements:

1. The entry age group for enrolment in the scheme is 21 to 40 years.
2. Age specific contribution shall be made by the beneficiary.
3. Each subscriber under the scheme shall receive a minimum pension of ₹ 3,000 per month after attaining the age of 60 years.
4. Family pension is applicable to the spouse and unmarried daughters.

Which of the statements given above is/are correct?

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

Explanation

Statement 1 is incorrect

- The Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM) Yojana is a government scheme that provides **social security and old age protection** for unorganized workers.
- **Eligibility:** Monthly income is **Rs 15,000/ per month or less** and belong to the entry age group of **18-40 years**.

Statement 2 is correct

- It is a voluntary and contributory pension scheme on a 50:50 basis where **prescribed age-specific contributions** shall be made by the beneficiary and the matching contribution by the Central Government.
- Subscribers need to contribute in the **range of Rs 55-200**, depending on their age.

Statement 3 is correct

- Each subscriber under the PMSYM, shall receive **minimum assured pension of Rs 3000/- per month after** attaining the age of **60 years**.

Statement 4 is incorrect

- During the receipt of pension, if the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension received by the beneficiary as family pension. **Family pension is applicable only to spouse.**
- If a **beneficiary** has given regular contribution and **died** due to any cause (before age of 60 years), his/her **spouse will be entitled to join and continue** the scheme subsequently by payment of regular contribution or **exit the scheme** as per provisions of exit and withdrawal.

Answer (b) 2 and 3 only

Difficulty level: Medium

Source: Conventional

Covered in PMF IAS? YES

PMF IAS Source 1: [PMF IAS Current Affairs](https://www.pmfias.com/current-affairs-december-08-2023/#recent-developments-in-e-shram-portal) > <https://www.pmfias.com/current-affairs-december-08-2023/#recent-developments-in-e-shram-portal>