

**Q1. During south-west monsoon, if rain fails to occur for one or more weeks, it is known as break in the monsoon. Which of the following can be the reason(s) of "Break in monsoon"?**

1. In northern India rains are likely to fail if the rain-bearing storms are not very frequent along the monsoon trough.
2. Over the east coast the dry spells are associated with days when winds blow parallel to the coast.

**Select the correct answer using the code given below:**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (a)**

**Explanation:**

- During the south-west monsoon period after having rains for a few days, if rain fails to occur for one or more weeks, it is known as break in the monsoon. These dry spells are quite common during the rainy season.
- These breaks in the different regions are due to different reasons:
  - **Statement 1 is correct:** In northern India rains are likely to fail if the rain-bearing storms are not very frequent along the monsoon trough or the Inter Tropical Convergence Zone (ITCZ) over this region.
  - **Statement 2 is incorrect:** Over the west coast the dry spells are associated with days when winds blow parallel to the coast.

**Q2. Generally, Winter monsoon does not cause rainfall in Northern India. Which of the following justify the given statement?**

- (a) Warm and moist air from the south-west Indian Ocean blows away from India.
- (b) Winter monsoon has high humidity which do not cause rainfall.
- (c) Due to movement of Inter Tropical Convergence Zone towards north occupying a position centred at 25°North.
- (d) Due to anti cyclonic circulation on land, the possibility of rainfall from them reduces.

**Ans: (d)**

**Explanation:**

- **Option (a) is incorrect:** The summer monsoon is associated with heavy rainfall. As winter ends, warm, moist air from the southwest Indian Ocean blows toward countries like India, Sri Lanka, Bangladesh, and Myanmar.
- **Option (b) is incorrect:** Winter monsoons do not cause rainfall as they move from land to the sea. One of the reasons is they have little humidity.
- **Option (c) is incorrect:** The summers are a period of excessive heat and falling air pressure in the northern half of the country. Because of the heating of the subcontinent, the Inter Tropical Convergence Zone (ITCZ) moves northwards occupying a position centred at 25°North in July.
- **Option (d) is correct:** Due to anti cyclonic circulation on land, the possibility of rainfall from them reduces. So, most parts of India do not have rainfall in the winter season.

**Q3. Consider the following statements:**

**Statement I:** The hot weather season in south India is mild and not so intense as found in north India.

**Statement II:** The Peninsular situation of south India with moderating effect of the oceans keeps the temperatures lower than that prevailing in north India.

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

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is correct.** The temperatures of the Penninsular India remain between 26°C and 32°C. Due to altitude, the temperatures in the hills of Western Ghats remain below 25°C. The hot weather season in south India is mild and not so intense as found in north India.
- **Statement 2 is correct:** The Peninsular situation of south India with moderating effect of the oceans keeps the temperatures lower than that prevailing in north India.

**Q4. Consider the following pairs:**

Local wind	Key Characteristics
1. Nor Westers	Useful for tea cultivation
2. Loo	Hot, dry and oppressing winds blowing in the Northern plains
3. Blossom Shower	Coffee flowers blossom in Kerala
4. Mango Shower	Pre-monsoon showers which are a common phenomenon in Kerala

**How many of the above pairs is/are correctly matched?**

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

**Ans: (d)**

**Explanation:**

- **Pair 1 is correct:** Nor Westers are dreaded evening thunderstorms in Bengal and Assam. Their notorious nature can be understood from the local nomenclature of 'Kalbaisakhi', a calamity of the month of Baisakh. These showers are useful for tea, jute and rice cultivation. In Assam, these storms are known as "Bardoisila".
- **Pair 2 is correct:** Loo are Hot, dry and oppressing winds blowing in the Northern plains from Punjab to Bihar with higher intensity between Delhi and Patna.
- **Pair 3 is correct:** With the Blossom Shower coffee flowers blossom in Kerala and nearby areas.
- **Pair 4 is correct:** Towards the end of summer, Mango shower are pre-monsoon showers which are a common phenomenon in Kerala and coastal areas of Karnataka. Locally, they are known as mango showers since they help in the early ripening of mangoes.

**Q5. Consider the following statements with reference to the Monsoon Winds of the Arabian Sea:**

1. The rain shadow region forms along the west side of western ghats.
2. These winds cause rainfall in extensive areas of central India.
3. These winds cause scanty rainfall along the Aravalis.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** After crossing the Western Ghats, these winds descend and get heated up. This reduces humidity in the winds. As a result, these winds cause little rainfall east of the Western Ghats. This region of low rainfall is known as the rain-shadow area.
- **Statement 2 is correct:** One branch of the Arabian sea monsoon strikes the coast north of Mumbai. Moving along the Narmada and Tapi river valleys, these winds cause rainfall in extensive areas of central India.
- **Statement 3 is correct:** One branch of this monsoon wind strikes the Saurashtra Peninsula and the Kachchh. It then passes over west Rajasthan and along the Aravalis, causing only a scanty rainfall.

**Q6. Consider the following statements:**

**Statement I:** During the southwest monsoon, heavy rains fall on the Tamil Nadu coast.

**Statement II:** The Tamil Nadu coast is situated parallel to the Bay of Bengal branch of southwest monsoon.

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

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

**Ans: (d)**

**Explanation:**

- The Arakan Hills along the coast of Myanmar deflect a big portion of the Bay of Bengal branch towards the Indian subcontinent.
- **Statement 1 is incorrect:** The Tamil Nadu coast remains dry during the south west monsoon.
- **Statement 2 is correct:** The Tamil Nadu coast is situated parallel to the Bay of Bengal branch of southwest monsoon. It lies in the rain shadow area of the Arabian Sea branch of the south-west monsoon.

**Q7. Consider the following:**

1. Clear skies
2. Fall in temperature
3. Moist land

**Which of the above characteristics is/are pertains to retreating monsoon?**

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

**Ans: (c)**

**Explanation:**

- The months of October and November are known for retreating monsoons. By the end of September, the southwest monsoon becomes weak as the low-pressure trough of the Ganga plain starts moving southward in response to the southward march of the sun.
- **Statement 1 is correct:** The retreating southwest monsoon season is marked by clear skies.
- **Statement 2 is incorrect:** The retreating southwest monsoon season is marked by rise in temperature. This is commonly known as the 'October heat'. The weather in the retreating monsoon is dry in north India but it is associated with rain in the eastern part of the Peninsula.
- **Statement 3 is correct:** During retreating southwest monsoon season, the land remains moist. Owing to the conditions of high temperature and humidity, the weather becomes rather oppressive.

**Q8. Consider the following statements with reference to the Indian Monsoon:**

1. The moisture levels drop when the monsoon winds shift from coast to inland.
2. Haryana and Punjab receive rainfall due to Western Disturbances in winter.

**Which of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- Indian monsoon, the most prominent of the world's monsoon systems, which primarily affects India and its surrounding water bodies.

- **Statement 1 is correct:** Throughout the plain area, there are numerous minor low-pressure cells throughout the summertime. Because of the subsequent rainfall at each low-pressure area, the moisture levels decrease as the monsoon winds move from the east to the west.
- **Statement 2 is correct:** Haryana and Punjab receive rainfall due to western disturbances and in summer rainfall is very low.

**Q9. Which of the following is true about the impact of El-Nino on Indian Monsoon?**

- (a) It is associated with weak monsoons and drought-like conditions.
- (b) It intensifies the monsoon winds.
- (c) It can lead to flood in India results in crop failure.
- (d) It brings more moisture to Indian surface.

**Ans: (a)**

**Explanation:**

- **Option (a) is correct:** El Nino is linked to India's drought-like conditions and weak south west monsoons, which provides around 70% of India's annual rainfall and is still the main source of income for the majority of its farmers.
- **Option (b) is incorrect:** La Nina intensifies the monsoon winds, resulting in more rainfall and moisture in India.
- **Option (c) is incorrect:** Due to La Nina, Floods and landslides brought on by excessive rain can harm infrastructure and agriculture.
- **Option (d) is incorrect:** La Nina is responsible for more moisture to Indian surface.

**Q10. Consider the following statements:**

1. The lofty mountain in north provides an invincible shield to protect the subcontinent from the cold northern winds.
2. The windward sides of Western Ghats receive high rainfall during June-September.

**Which of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** The lofty Himalayas in the north along with its extensions act as an effective climatic divide. The towering mountain chain provides an invincible shield to protect the subcontinent from the cold northern winds.
- These cold and chilly winds originate near the Arctic circle and blow across central and eastern Asia. The Himalayas also trap the monsoon winds, forcing them to shed their moisture within the subcontinent.
- **Statement 2 is correct:** The windward sides of Western Ghats and Assam receive high rainfall during June-September whereas the southern plateau remains dry due to its leeward situation along the Western Ghats.

**Q11. Consider the following statements:**

1. In summers, the Inter Tropical Convergence Zone is located around 20°N - 25°N latitudes sometimes called the monsoon trough.
2. The Monsoon trough encourages the development of thermal low over southern India.

**Which of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2



**Ans: (a)**

**Explanation:**

- **Statement 1 is correct:** The Inter Tropical Convergence Zone (ITCZ) is a low-pressure zone located at the equator where trade winds converge, and so, it is a zone where air tends to ascend. In July, the ITCZ is located around 20°N-25°N latitudes (over the Gangetic plain), sometimes called the monsoon trough.
- **Statement 2 is incorrect:** The monsoon trough encourages the development of thermal low over north and northwest India. Due to the shift of ITCZ, the trade winds of the southern hemisphere cross the equator between 40° and 60°E longitudes and start blowing from southwest to northeast due to the Coriolis force. It becomes southwest monsoon.
- In winter, the ITCZ moves southward, and so the reversal of winds from northeast to south and southwest, takes place. They are called northeast monsoons.

**Q12. Consider the following statements:**

1. Northward movement of the subtropical jet is the first indication of the onset of the monsoon over India.
2. The burst of monsoons depends upon the upper air circulation which is dominated by Polar Night Jet streams.

**Which of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (a)**

**Explanation:**

- The Jet Stream is a geostrophic wind that typically blows from west to east at a height of 20,000 to 50,000 feet, traveling horizontally across the highest layers of the troposphere. Wherever air masses with different temperatures converge, jet streams form. Thus, the formation of the Jet Stream is often determined by the surface temperatures.
- **Statement 1 is correct:** The periodic movement of the Jet stream is often the indicator of the onset (STJ shifts to the north of Himalayas in a matter of days) and subsequent withdrawal (STJ returns back to its position – south of Himalayas) of the monsoon. Northward movement of the subtropical jet is the first indication of the onset of the monsoon over India.
- **Statement 2 is incorrect:** The Sub Tropical Jet Streams (STJ) dominate the upper air circulation, which is responsible for the burst of monsoons. The tropical easterly stream is connected to the south-west monsoon that arrives in India. It blows in latitudes between 8 and 35 degrees North.

**Q13. Consider the following pairs with reference to the Koppen's classification of the Indian Climate:**

Code	Climatic region
1. As	Eastern Rajasthan, Ganga Plains
2. BShw	North-western Gujarat, Punjab
3. Cwg	Tamil Nadu
4. Dfc	Arunachal Pradesh

**How many of the above pairs are correctly matched?**

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

**Ans: (b)**

**Explanation:**

- The Koppen climate classification divides climates into five main climate groups, with each group being divided based on patterns of seasonal precipitation and temperature.
- The five main groups are A (tropical), B (arid), C (temperate), D (continental), and E (polar). Each group and subgroup are represented by a letter.

- **Pair (1) is incorrect:** It means monsoon type with dry season in high sun period. Annual rainfall varies between 75-100cm. This group includes the coastal parts of Tamil Nadu and the areas that border Andhra Pradesh in India.
- **Pair (2) is correct:** It denotes Semi-arid Steppe type climatic region. Annual rainfall varies between 12cm to 25cm. This group includes some rain shadow portions of the Western Ghats, a considerable portion of Rajasthan, and adjoining areas of Haryana and Gujarat.
- **Pair (3) is incorrect:** This code denotes Monsoon type with dry winters. Rainfall varies between 100 to 200 cm annually. This group includes most of the Ganga Plain, eastern Rajasthan, Assam, and the Malwa Plateau are affected.
- **Pair (4) is correct:** This denotes Cold, Humid winters type with shorter summer. Rainfall lies around approximately 200cm annually. This group includes Sikkim, Arunachal Pradesh, and portions of Assam.

**Q14. Consider the following:**

1. Relief features
2. Distance from the sea
3. Distribution of Land and water
4. Longitude

**Which of the above-mentioned factors determine the climate of India?**

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is correct:** The physiography or relief of India affects the temperature, air pressure, direction and speed of wind and the amount and distribution of rainfall.
- **Statement 2 is correct:** With a long coastline, large coastal areas have an equable climate. Areas in the interior of India are far away from the moderating influence of the sea. Such areas have extremes of climate. That is why, the people of Mumbai and the Konkan coast have hardly any idea of extremes of temperature and the seasonal rhythm of weather.
- **Statement 3 is correct:** India is flanked by the Indian Ocean on three sides in the south and girdled by a high and continuous mountain-wall in the north. As compared to the landmass, water heats up or cools down slowly.
- **Statement 4 is incorrect:** Longitude has no impact on climate of any region.

**Q15. Consider the following statements with reference to the Tropical evergreen forest:**

1. These forests are found in warm and humid areas with an annual precipitation of over 200 cm.
2. These forests are well stratified, with layers closer to the ground.
3. These forests have definite time for trees to shed their leaves.

**How many of the above statements are correct?**

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

**Ans: (b)**

**Explanation:**

- Tropical evergreen forests are found in the western slope of the Western Ghats, hills of the northeastern region and the Andaman and Nicobar Islands.
- **Statement 1 is correct:** They are found in warm and humid areas with an annual precipitation of over 200 cm and mean annual temperature above 22 degrees Celsius.

- **statement 2 is correct:** Tropical evergreen forests are well stratified, with layers closer to the ground and are covered with shrubs and creepers, with short structured trees followed by tall variety of trees.
- **Statement 3 is incorrect:** In these forests, trees reach great heights up to 60 m or above. There is no definite time for trees to shed their leaves, flowering and fruition.

**Q16. Consider the following statements:**

1. These forests are also called the monsoon forests.
2. These forests are spread over regions which receive rainfall between 70-200 cm.
3. These forests are the most widespread forests in India.

**Which of the following forests is mentioned in the above statements?**

- (a) Tropical semi-evergreen forests
- (b) Tropical Deciduous forests
- (c) Tropical Thorn forests
- (d) Littoral and Swamp forests

**Ans: (b)**

**Explanation:**

**Tropical Deciduous forests:**

- These are the most widespread forests in India.
- They are also called the monsoon forests.
- They spread over regions which receive rainfall between 70-200 cm.
- On the basis of the availability of water, these forests are further divided into moist and dry deciduous.
- The places that these forests are situated in are characterized by a protracted dry season that is followed by a strong rainfall season. **So, option (b) is correct.**

**Q17. Consider the following statements with reference to the Tropical Thorn Forests:**

1. In these forests, plants remain leafless for most part of the year and give an expression of scrub vegetation.
2. These forests occur in semi-arid areas of south west Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh.

**Which of the statement given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- Tropical thorn forests occur in the areas which receive rainfall less than 50 cm.
- **Statement 1 is correct:** In these forests, plants remain leafless for most part of the year and give an expression of scrub vegetation.
- **Statement 2 is correct:** These consist of a variety of grasses and shrubs. It includes semi-arid areas of south west Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh.
- Important species found are babool, ber, and wild date palm, khair, neem, khejri, palas, etc.

**Q18. Consider the following statements:**

1. The northern slopes of the Himalayas carry a thicker vegetation cover than the south- facing slopes.
2. Rosewood, Mahogany, Aini are few species of Tropical evergreen forests.
3. Deciduous forests are found in the foothills of the Himalayas.

**How many of the above statements is/are correct?**

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

(d) None

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** The southern slopes of the Himalayas carry a thicker vegetation cover because of relatively higher precipitation than the drier north-facing slopes. At higher altitudes, mosses and lichens form part of the tundra vegetation.
- **Statement 2 is correct:** As Tropical evergreen forests appear green all the year round. Species found in these forests include rosewood, Mahogany, aini, ebony, etc.
- **Statement 3 is correct:** The Himalayan ranges show a succession of vegetation from the tropical to the tundra, which change in with the altitude. Deciduous forests are found in the foothills of the Himalayas.

**Q19. Consider the following statements National Family health survey-5:**

1. India's average total fertility rate is above replacement level.
2. Among states Sikkim has the lowest urban total fertility rate in India.

Which of the statements given above is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 and 2

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** According to National Family health survey-5, the Total Fertility Rate (TFR) declined to 2.0 in 2019-21 (NFHS 5) which is below replacement level. Total Fertility Rate of about 2.1 children per woman is called Replacement-level fertility
- **Statement 2 is correct:** According to National Family health survey-5 Sikkim has a Total Fertility rate TFR of 1.1, 0.7 in urban area and 1.3 in rural area which is far below the national average and a cause for concern. The total population growth rate of Sikkim fell to 12.89% in 2001-2011, from 32.98% in 1991-2001.
- Sikkim has the lowest population at just over 6.8 lakh. Its TFR has halved in the last 15 years. Experts said this means that only one out of every 3-4 women in Sikkim are bearing children. According to NFHS-5 data, among women aged 25-49 years, the median age of first marriage was 21.5 years. In the 20-49 years age group, 25% of women and 40% of men had not married.

**Q20. Consider the following statements regarding Malthus theory:**

1. It explained that the Population grows in an arithmetic progression.
2. One of the criticisms of the theory is absence of preventive checks in the theory.

Which of the statements given above is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**

**Explanation:**

- Thomas Robert Malthus (1766-1834) in his Essay on the Principle of Population (1798) Malthus argued that because of the strong attraction of the two sexes, the population could increase by multiples, doubling every twenty-five years. He contended that the population would eventually grow so large that food production would be insufficient.
- **Statement 1 is incorrect:** Malthus stated that population increased in a geometric progression (ie., 2, 4, 16, 132...). While food production increased in arithmetic progression (ie., 2, 4, 6, 8...). Thus, population grew faster than food production and tended to outstrip it in a short time.



- **Statement 2 is correct:** Henry George in Progress and Poverty (1879) criticised Malthus's view that population growth was a cause of poverty, arguing that poverty was caused by the concentration of ownership of land and natural resources.
- Malthus overemphasized the 'positive' checks and did not visualize the role of 'preventive' checks like contraceptives and family planning.

**Q21. Which of the following is not an example of economic factor influencing the population distribution**

- (a) Copper mining activities in Katanga, Democratic Republic of Congo.
- (b) Shipping Industries in Kobe-Osaka, Japan.
- (c) Water crisis in Cape town, South Africa.
- (d) Rural to urban migration in India.

**Ans: (c)**

**Explanation:**

- Water is the most important factor for life. So, people prefer to live in areas where fresh water is easily available. Water is used for drinking, bathing and cooking – and also for cattle, crops, industries and navigation. It is a major geographic factor which influence the population distribution of an area. So, water Crisis in cape town is an geographical factor which influence the population distribution. **So, option (c) is correct.**
- The government announced “day zero” – a moment when dam levels would be so low that they would turn off the taps in Cape Town and send people to communal water collection points.
- Mining activities or industrial activities are part of economic factor which influence the population distribution.
- Areas with mineral deposits attract industries. Mining and industrial activities generate employment. So, skilled and semi-skilled workers move to these areas and make them densely populated. Copper mining activities in Katanga, Africa is one such good example.
- Cities offer better employment opportunities, educational and medical facilities, better means of transport and communication. Good civic amenities and the attraction of city life draw people to the cities. It leads to rural to urban migration and cities grow in size. Mega cities of the world continue to attract large number of migrants every year.

**Q22. Which of the following correctly describe the term “Farm forestry”?**

- (a) It is the process under which farmers grow trees for commercial and non-commercial purposes on their farm lands.
- (b) It is the management and protection of forests and afforestation on barren lands with the purpose of helping in the environmental, social and rural development.
- (c) It is the land granted by government to the farmers to grow trees.
- (d) It is the process to clear unwanted plants from the farm land.

**Ans: (a)**

**Explanation:**

- Farm forestry is a term applied to the process under which farmers grow trees for commercial and non-commercial purposes on their farm lands. **So, option (a) is the correct.**
- Forest departments of various states distribute seedlings of trees free of cost to small and medium farmers. Several lands such as the margins of agricultural fields, grasslands and pastures, land around homes and cow sheds may be used for raising trees under non-commercial farm forestry.

**Q23. Consider the following:**

1. Overexploitation by humans
2. Declaring particular land as wildlife sanctuary
3. Natural disasters
4. Habitat fragmentation

**Which of the above mentioned factors are responsible for decline in wildlife sanctuary?**

- (a) Only 1, 2 and 3

- (b) Only 2, 3 and 4  
(c) Only 1, 3 and 4  
(d) 1, 2,3, and 4

Ans: (c)

Explanation:

- **Statement 1 is correct:** Overexploitation has led to the endangered status of several species. The poaching of frogs for the exotic pet trade has led to the current endangered status of several frog species. Because of overexploitation by humans, there is a false belief that rhino horns have therapeutic qualities, which has led to the endangered status of the species.
- **Statement 2 is incorrect:** The objective of the wildlife sanctuaries is to safeguard threatened and endangered animals. It is advantageous to protect animals in their native habitat because it is fairly tough to constantly relocate them from it. In the wildlife sanctuaries, particular attention is paid to the endangered species.
- **Statement 3 is correct:** Wildlife can be killed by the force of the disaster or impacted indirectly through changes in habitat and food availability. Endangered species are especially vulnerable when habitat is destroyed.
- **Statement 4 is correct:** Fragmentation limits wildlife mobility. Individuals struggle to move between habitat patches, which can lead to inbreeding and a loss of genetic diversity. This reduces the long-term health of a population, making it more vulnerable to disease and at greater risk of extinction.

Q24: Consider the following pairs:

**Waterfall**

1. Hundru
2. Gerosoppa
3. Kunchikal

**River**

- Damodar
- Tungabhadra
- Varahi

How many pairs given above is/are **incorrect**?

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

Ans: (b)

Explanation:

- **Pair 1 is incorrect:** The Hundru Falls is created on the course of the Subarnarekha River, where it falls from a height of 98 metres creating one of the highest water falls in Jharkhand.
- **Pair 2 is incorrect:** Jog Falls (also known as Gerosoppa falls) are located in the Shivamogga district of Karnataka. Jog itself is a Kannada word, which means falls. Jog Falls is created by the Sharavati river dropping 253 meters making it the third-highest waterfall in India after the Nohkalikai Falls with a drop of 335 m in Meghalaya and the Dudhsagar Falls with a drop of 310 m in Goa.
- **Pair 3 is correct:** Kunchikal Falls is a waterfall in India located in the Nidagodu village near Masthikatte in the Shivamogga district of state Karnataka. Kunchikal falls cascades down rocky boulders and the total height of the falls is 455 meters according to the World Waterfall Database. Kunchikal falls is formed by the Varahi River.

Q25. Consider the following statements:

1. Lake Vembanad is also known as the gateway of backwaters to Kerala.
2. Lake Tsomoriri is the highest fresh water lake of India.

How many statements given above is/are correct?

- (a) Only 1  
(b) Only 2

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

**Ans: (d)**

**Explanation:**

- **Statement 1 is incorrect:** Ashtamudi lake which is called as the gateway to Kerala backwaters because of its 8 arms or channels and it is one among the most visited back water lake in the country. It is situated in Kollam district of Southern Kerala with surface area about 61.4 Km square. Kallada river is the major source of water for Ashtamudi lake. Vembanad is the longest lake in India as well as the largest lake in the state of Kerala.
- **Statement 2 is incorrect:** The Tso Moriri Lake is located in the Changthang plateau in northern Ladakh. The lake is situated at an altitude of 4,522 meters and is one of the highest saltwater lakes in India. The surrounding area of the lake is protected and is known as Tso Moriri Wetland Conservation Reserve.

**Q26: Consider the following statements related to the geological formation of Indian Subcontinent:**

1. Tethys were folded to form the mountain system of western Asia and Himalaya.
2. Peninsular India was part of the Angaraland.

Which of the above mentioned statement(s) is/are correct?

- (a) Only 1  
(b) Only 2  
(c) 1 and 2  
(d) Neither 1 nor 2

**Ans: (a)**

**Explanation:**

- The present relief features have evolved as a result of changes which have taken place over millions of years. The area now occupied by the Himalayas and the Northern Plains of India was under a sea, called 'Tethys'. It was an elongated and shallow sea sandwiched between the two giant land masses — 'the Angaraland' in the north and 'the Gondwanaland' in the south. The Tethys stretched from the present Indo-Myanmar border in the east and covered a vast area including western Asia, northeastern and central parts of Africa before it joined the South Atlantic Ocean in the Gulf of Guinea in the west.
- For millions of years denudation of the two land masses resulted in deposition of silt into the Tethys. These two giant land masses were slowly but steadily heading towards each other. This lateral congressional force acting from two opposite directions made the sea not only shrink further but also buckle up forming a chain of islands to begin with and over millions of years into the mighty fold mountains such as the Himalayas of today. **So, option (a) is correct.**

**Q27: Consider the following statements regarding The Great Mountain Wall of the North?**

1. The Pamir knot marks the convergence of some of the world's major mountain ranges, including the Karakorum and Kunlun.
2. The Baltoro and the Siachen Glaciers are located in Kailas Range.
3. The River Indus flows between the Ladakh and the Zaskar Mountain ranges from south-east to north-west.

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

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is correct:** In Central Asia, not far from India, lies the well-known Pamir knot. It is often called the roof of the world. From this knot run several mountain ranges. One of them is the Kunlun which moves

eastwards into Tibet. Another range, i.e. the Karakoram, enters into Kashmir and runs south-east and includes the plateau of Aksai Chin. It extends further east and is known as the Kailas Range in Tibet.



- **Statement 2 is incorrect:** The Karakoram are lofty mountains containing K2, the second highest mountain peak of the world. The Karakoram pass has now acquired special importance. There are big glaciers, i.e. extremely slow flowing rivers of solid ice and snow in this part. The Baltoro and the Siachen are some of the glaciers of this area.
- **Statement 3 is correct:** To the south of the Karakoram lie two parallel ranges. They are known as the Ladakh and the Zaskar ranges. The Indus River rising in the vicinity of the Kailas peak. It manages to cross the Kailas and other ranges before entering India. In Kashmir it flows between the Ladakh and the Zaskar Mountain ranges from south-east to north-west.

**Q28: Consider the following statements related to the Himalayas:**

1. It is located in west-east direction from the Indus to the Brahmaputra.
2. Its width variations are greater in the eastern half than those in the western half.

Which of the above mentioned statements is/are **incorrect**?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**

**Explanation:**

**Statement 1 is correct:** The Himalayas are young fold mountains. By and large there are three distinct ranges running parallel to one another. The north Himalayas extends from the Indus in the west to the Brahmaputra in the east. They form an arc between these two extremes, covering a distance of 2500 km.

**Statement 2 is incorrect:** The width of the Himalayas varies from 400 km in the west to 150 km in the east. It is wide in Kashmir and becomes narrow towards the east. The height of the eastern half is greater than the western half.





**Q29: Consider the following statements:**

1. The Purvanchal comprises the Patkai hills, the Naga hills and the Mizo hills.
2. The Jaintia, Khasi and Garo Hills lies in the same order from west to east.

Which of the above mentioned statements is/are correct?

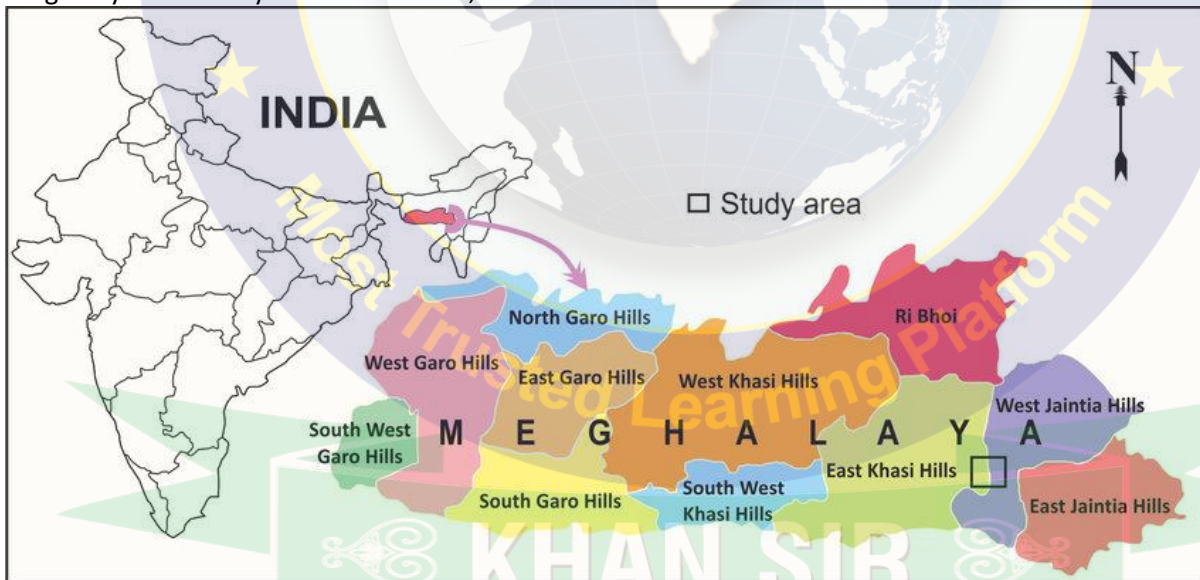
- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (a)**

**Explanation:**

**Statement 1 is correct:** The Brahmaputra marks the eastern-most geographical limit of the Himalaya. Mountains along the eastern boundary of India are called Purvanchal. These mountains are spectacular than the Himalaya. They are of medium height. They comprise the Patkai Bum, and the Naga Hills in the north, and the Mizo Hills in the south.

**Statement 2 is incorrect:** At the centre, they take a westward turn along the Bangladesh-India border in Meghalaya. Here they consist of Jaintia, Khasi and Garo Hills from east to west.



**Q30: Consider the following statements:**

1. The Vindhyan range is bounded by the Satpura range from south.
2. The Central Highlands are wider in the west but narrower in the east.
3. The westward extension of Malwa plateau is locally known as the Bundelkhand.

Which of the above mentioned statements are correct?

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

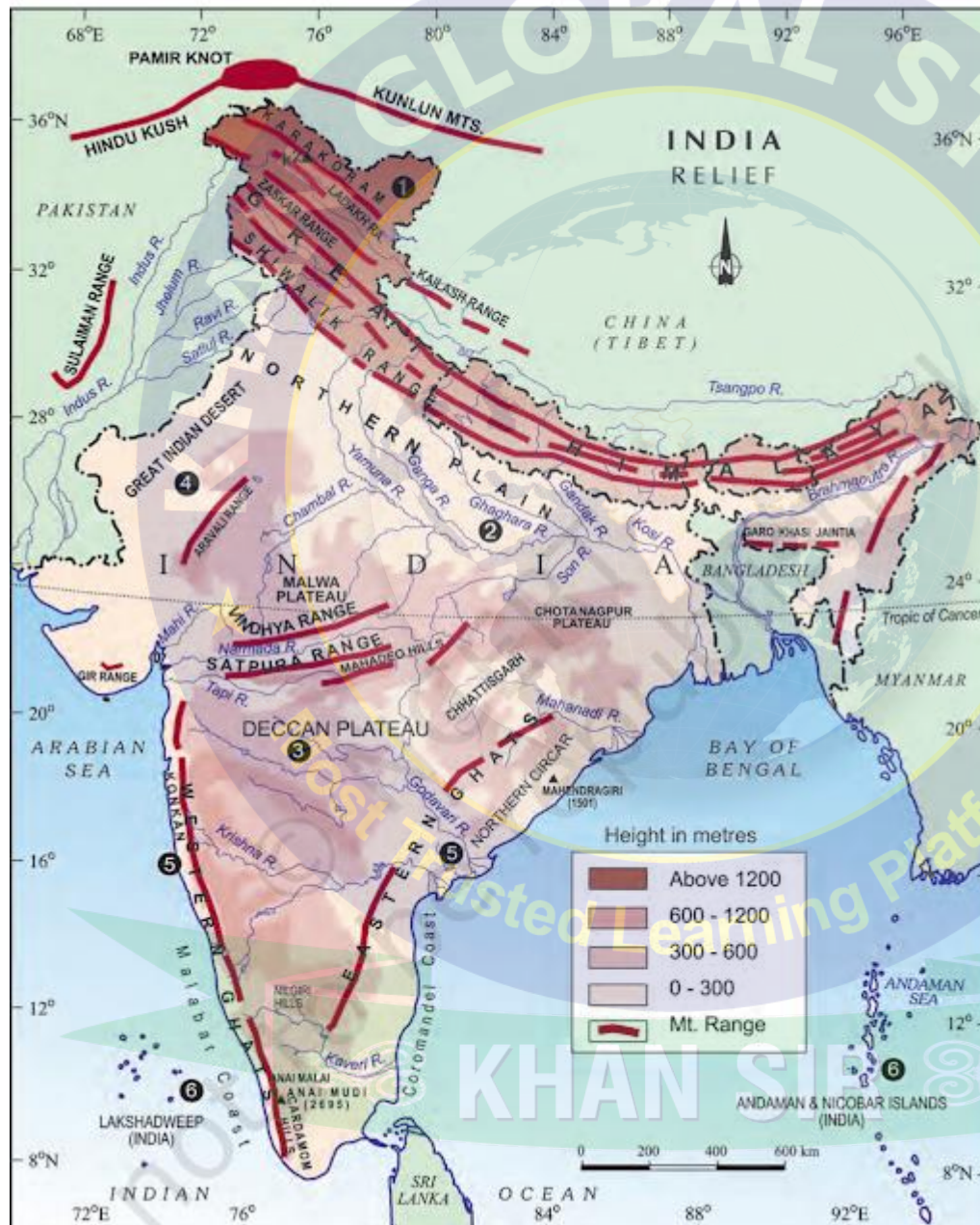
Ans: (a)

Explanation:

**Statement 1 is correct:** The Vindhyan range is bounded by the Satpura range on the south and the Aravalis on the northwest. Vindhya Range, broken range of hills forming the southern escarpment of the central upland of India. From Gujarat state on the west, it extends about 1,086 km across Madhya Pradesh state to abut on the Ganga River valley near Varanasi, Uttar Pradesh.

**Statement 2 is correct:** The slopes of central highlands are from southwest to northeast. It covers the major portion of the Malwa plateau. It is wider in the west and narrower in the east.

**Statement 3 is incorrect:** Plateau merges gradually in the Gangetic Plains of the north is known as the Malwa Plateau. It is fairly wide in the west and goes on tapering in the east. Its eastern part is known as Bundelkhand and Baghelkhand in southern Uttar Pradesh. In South Bihar it is known as Chhotanagpur plateau. The southern tributaries of the Yamuna and the Ganga drain the plateau.



**Q31: Consider the following statements related to the Coastal Plains:**

1. The northern part of the western coast is called the Konkan.
2. The Narmada and Tapi rivers form deltas along the western coast.
3. The plains along the Bay of Bengal are wide and level.

Which of the above mentioned statements is/are correct?

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

**Ans: (a)**

**Explanation:**

**Statement 1 is correct:** The west coastal plain extends from Gujarat to Kerala. The coastal strip along the Arabian Sea in the west is known as Konkan in the north and Malabar in the south of Goa.

There are several estuaries—the major ones being those of the Narmada and Tapi in Gujarat. It is blessed with deep natural harbours like Mumbai and Marmagao.

**Statement 2 is incorrect:** The Narmada and Tapi rivers in India do not form deltas because they have steep gradients and their flow is relatively fast. There are several estuaries—the major ones being those of the Narmada and Tapi in Gujarat. It is blessed with deep natural harbours like Mumbai and Marmagao.

**Statement 3 is correct:** In the south, the coast is studded with salt water lakes called lagoon's. There are also sand bars or spits at their mouths. The coastal strip along the Bay of Bengal is broad and more level unlike the western strip. The coastal strip, but for the deltas, is rocky and highly dissected by small but fast flowing rivers.

**Q32: Consider the following statements related to 'Tropical deciduous forests':**

1. These are the most widespread forests of India and are popularly as Monsoon Forests.
2. Sal is an important tree of the dry deciduous type.
3. The dry deciduous forests are common along the Shiwaliks in the north.

Which of the above mentioned statements is/are correct?

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

**Ans: (d)**

**Explanation:**

- **Statement 1 is correct:** Tropical deciduous forests are also called the monsoon forests par excellence. This is so because they form the natural cover almost all over India, particularly between of 200 and 75 centimetres of rainfall. Economically they are very important. They need a lot of care as they are less resistant to fire.
- **Statement 2 is correct:** Teak and Sal are the most important tree of the dry deciduous type. It has been observed that moist deciduous forests are getting gradually replaced by dry deciduous forests. These are called deciduous (be it moist or dry) because they shed leaves for about six to eight weeks in summer. Every species has its own time of leaf shedding and as such at no particular time the forests are absolutely bare.
- **Statement 3 is correct:** Tropical deciduous forests are divided into two groups: (i) moist, and (ii) dry deciduous. The former are found on the eastern slopes of the western Ghats. Teak is an important species of this region. The moist deciduous are also found in the north-eastern part of the peninsula i.e. around Chhotanagpur plateau covering east Madhya Pradesh, south Bihar and west Orissa. The Shivalik hills are characterized by tropical dry deciduous forest.

**Q33: Consider the following statements:**

1. The leaves of plants in thorn and scrub forests are in the form of spines to reduce the loss of water.
2. Mangrove trees can survive only in saline water.

Which of the above mentioned statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2



**Ans: (a)**

**Explanation:**

- The thorn and scrub forests are confined to areas with rainfall under 75 centimetres. They are spread over north-western part of the country from Saurashtra in the south to Punjab plains in the north. In the east they stretch to northern Madhya Pradesh (mainly Malwa Plateau) and south-west Uttar Pradesh covering Bundelkhand plateau.
- **Statement 1 is correct:** Kikar, Babul, Khair, date palms are some of the useful trees. Scattered trees with long roots spread in a radial pattern are common features. These forests gradually fade away into scrubs and thorny bushes, which constitute the typical desert vegetation. Trees in Thorn forests and scrubs have mostly thick and these are in the form of spine and little leaves to minimize water loss due to transpiration.
- **Statement 2 is incorrect:** The tidal area along the coasts and rivers is covered by mangrove trees that can survive in both fresh and salt water—the major characteristic of the tidal areas. Sundari is a well known mangrove tree. It is after this tree that the name Sundarban has been given to the forested parts of the Ganga-Brahmaputra delta.

**Q34: Consider the following statements:**

1. Soils develop because of the weathering of materials on Earth's surface.
2. Conservation of soil is necessary to ensure sustained productivity of land.

Which of the above mentioned statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** Soils are derived from parent rock material through the process of break-up, or wear and tear. Weathering is the breaking down or dissolving of rocks and minerals on Earth's surface. Various forces of nature such as changing temperature, running water and wind etc. contribute in the evolution of soil. Chemical and organic changes which take place in the soil layer are equally important.
- **Statement 2 is correct:** Fine plants and animal remains, called humus, add to the fertility of the soil. Faulty agricultural practices, deforestation and overgrazing have led to soil erosion in many parts. The soil may be conserved by improved agricultural practices, afforestation and reducing pressure of grazing.
- Indian soils are generally divided into four broad types. These soil types are:
  - alluvial soils
  - regur soils
  - red soils
  - laterite soils.

**Q35: Consider the following statements related to the alluvial soil:**

1. They are deficient in phosphoric acid and nitrogenous material.
2. Bangar, the new alluvium is less fertile than the khaddar soil.

Which of the above mentioned statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (d)**

**Explanation:**



- Apart from the size of their grains or particles, alluvial soils are described according to their age as well. They are old alluvium and new alluvium. Remember that so called new alluvium may be even ten thousand years old: Locally the old alluvium is called Bangar, and the new alluvium is called khadar. The old alluvium often contains Kankar nodules, with calcium carbonates in sub-soil. The new alluvium is more fertile than the old.
- **Statement 1 is incorrect:** Generally, alluvial soil contain adequate potash, phosphoric acid and lime. However, they are deficient in organic and nitrogenous content.
- **Statement 2 is incorrect:** Alluvial soils as a whole are very fertile. The new alluvium is more fertile than the old. Generally, they contain adequate potash, phosphoric acid and lime. However, they are deficient in organic and nitrogenous content. Soils in the drier areas are more alkaline. Alluvial soils support over half the Indian population.

**Q36. Which of the following are the examples of agro-based industries?**

1. Cotton Industry
2. Sugar and edible oil
3. Cement Industry
4. Jute Industry

**Select the correct answer using the codes given below:**

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

**Ans: (b)**

**Explanation:**

- Agro-based industries are those industries that derive their raw materials from agricultural produce such as cotton, jute, sugar, edible oil, etc.
- Textiles, sugar, vegetable oil and plantation industries derive their raw materials from agriculture. These are, therefore, called agro- based industries. **So, option (b) is correct.**

**Q37. Which of the following is/are unique characteristic/ characteristics of equatorial forests?**

1. Presence of tall, closely set trees with crowns forming a continuous canopy.
2. Coexistence of a large number of species.
3. Presence of numerous varieties of epiphytes.

**Select the correct answer using the codes given below:**

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

**Ans: (d)**

**Explanation:**

- **Statement 1 is correct:** The vegetation in equatorial rainforests is characterized by tall trees forming a dense canopy that shades the forest floor, creating a multi-layered ecosystem.
- **Statement 2 is correct:** These forests contain a myriad of species of trees, plants, insects, birds, mammals, and other organisms, many of which are endemic to these regions. It is characterised by coexistence of a large number of species.
- **Statement 3 is correct:** Equatorial rainforests are among the most diverse ecosystems on Earth, housing an incredibly rich variety of plant and animal species. It is characterized by presence of numerous varieties of epiphytes.
- Very warm with an average daily temperature of 28°C. The temperature never drops below 20°C and rarely exceeds 35°C.
- The atmosphere is hot and humid close humid when the air holds a lot of moisture.

**Q38. India is regarded as a country with “Demographic Dividend”. This is due to:**

- (a) Its high population in the age group below 15 years
- (b) Its high population in the age group of 15-64 year
- (c) Its high population in the age group above 65 years
- (d) Its high total population

**Ans: (b)**

**Explanation:**

- Demographic dividend refers to the growth in an economy that is the result of a change in the age structure of a country's population. The change in age structure is typically brought on by a decline in fertility and mortality rates.
- India is regarded as a country with “Demographic Dividend”. This is due to its high population lies in the the age group of 15-64 year.
- India adds 12 million people to the working-age population every year, if it cannot improve the quality of the workforce and create enough jobs, the so-called demographic dividend could become a demographic disaster. So, option (b) is the correct answer.

**Q39. India's demographic dividend is expected to persist at least until 2055–56, What steps can be taken to reap the India's demographic dividend?**

1. Inter-sectoral Collaborations
2. Bridging gender gap at workplace
3. Providing required skills to the youth

**How many of the statements given above is/are correct?**

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

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** It is crucial to establish better inter-sectoral coordination mechanisms in order to protect the futures of teenagers. In order to effectively address the problem that our adolescents face, departmental coordination can lead to better solutions and more efficiency.
- **Statement 2 is correct:** There is an urgent need to provide women and girls with new opportunities and skills appropriate for their involvement in economy.
- **Statement 3 is correct:** Whether a child attends a public school in an urban or rural environment, they must all finish high school and be encouraged to pursue relevant training, education, and career opportunities in order to meet the needs of the labour market.

**Q40. Consider the following statements:**

1. The Indian Himalayan Region covers more than 10 states.
2. Silver firs, birch occur between 1000 – 1500m.
3. Blue pine and spruce appear along Himalayan range.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** The Indian Himalayan Region is spread across 13 Indian States/Union Territories (namely Jammu and Kashmir, Ladakh, Uttarakhand, Himachal Pradesh, Arunachal Pradesh,

Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Assam and West Bengal), stretching across 2500 km.

- **Statement 2 is incorrect:** At many places in Himalayan zone, temperate grasslands are also found. But in the higher reaches there is a transition to Alpine forests and pastures. silver firs, junipers, pines, birch and rhododendrons, etc. occur between 3,000-4,000 m.
- **Statement 3 is correct:** Between 1,500-1,750 m, pine forests are also well-developed in Himalayan zone, with Chir Pine as a very useful commercial tree. Blue pine and spruce appear at altitudes of 2,225-3,048 m.

**Q41. When you travel in Himalayas, you will see the following:**

1. Deep gorges
2. U-turn River courses
3. Parallel Mountain ranges
4. Steep gradients causing land sliding

**Which of the above can be said to be the evidence for Himalayas being young fold mountains?**

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

**Ans: (d)**

**Explanation:**

- **Statement 1 is correct:** The Himalayas are very young, as evidenced by the existence of deep valleys. The rivers that cut through the mountain range eroded away, creating these gorges.
- **Statement 2 is correct:** The existence of a U-turn River courses provides evidence of the Himalayas' young. The rivers frequently alter their route due to the mountains' fragile structure and severe grades.
- **Statement 3 is correct:** The three parallel ranges of the Himalaya mountains are Himadri (Great Himalayas or Inner Himalayas), Himachal (Lesser Himalayas), Siwalik's (Outer Himalayas): Himadri (Great Himalayas or Inner Himalayas)- It is the most nonstop and continuous range of the Himalayas. These parallel mountain ranges provide evidence for Himalayas being young fold mountains.
- **Statement 4 is correct:** The evidence for Himalayas being young fold mountains comes from the steep gradients. One of the reasons landslides happen often in the Himalayas is their steep grades. The tectonic forces affecting the mountains are still creating instability and slope failures as the mountains respond to them.

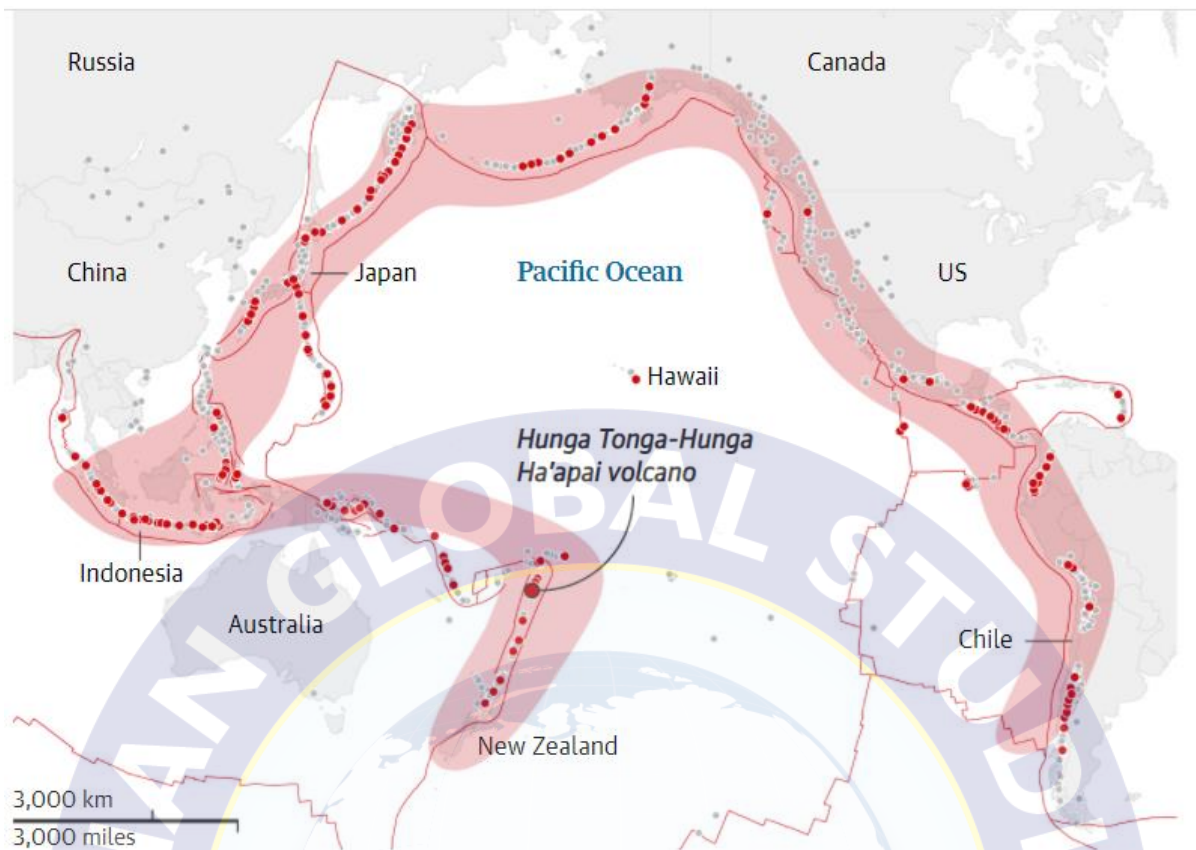
**Q42. Recently, Hunga Tonga volcano was in news. It is located:**

- (a) Pacific Ocean
- (b) Indian Ocean
- (c) Atlantic Ocean
- (d) Arctic Ocean

**Ans: (a)**

**Explanation:**

- The Hunga Tonga volcano is a submarine volcano in the South Pacific located about 30 km south of the submarine volcano of Fonuafo'ou and 65 km north of Tongatapu, Tonga's main island. **So, Option (a) is correct.**
- The Year 2023 has recorded unprecedented temperatures. Scientists believe one of the reasons for this may be an underwater volcanic eruption of Hunga Tonga in the South Pacific in 2022.



**Q43. Consider the following statements:**

1. Act as a natural sewage treatment plant.
2. Support a vast range of biodiversity.
3. Act as a static border security force for protecting the coast from erosion.
4. Obstructs the passage of cold continental air from the north into India.

**How many of the above-mentioned statements is/are prominent role of mangrove forests?**

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

**Ans: (c)**

**Explanation:**

- Mangroves are generally found along the coastlines of tropical and subtropical regions, between 25-degree N and 25-degree S latitude, throughout the world. Mangroves are located all along estuarine areas, deltas, tidal creeks, mud flats and salt marshes.
- **Statement 1 is correct:** Mangrove forests act as a natural sewage treatment plant. Mangrove intertidal wetlands are of great potential for natural wastewater treatment, and are unlikely to produce any harmful effect on the higher plant communities.
- **Statement 2 is correct:** Biodiversity is essential for the processes that support all life on Earth, including humans. As biodiversity havens, mangroves support a huge variety of plants and animals, many of them important for food production. They act as nurseries for young fish and home to honey bees.
- **Statement 3 is correct:** Mangroves act as a static border security force for protecting the coast from erosion. It provides natural infrastructure to help protect nearby populated areas by reducing erosion and absorbing storm surge impacts during extreme weather events such as hurricanes.
- **Statement 4 is incorrect:** The Great Himalaya Range obstructs the passage of cold continental air from the north into India in winter and also forces the south-westerly monsoon.

**Q44. Recently, Monsoon was delayed over Kerala coast by few days. What can be the reason of delay?**

- (a) Formation of cyclonic circulation in the Arabian Sea has reduced cloud cover over the Kerala coast.
- (b) Cessation of rainfall activity over the area for continuous five days over Kerala coast.



- (c) Considerable reduction in moisture content over Kerala coast.  
(d) Early arrival of western disturbances over Kerala coast.

**Ans: (a)**

**Explanation:**

- India's monsoon onset over the southernmost Kerala coast is delayed by another two-three days because the formation of cyclonic circulation in the Arabian Sea has reduced cloud cover over the Kerala coast. **So, option (a) is correct.**
- The monsoon, the lifeblood of the country's \$3 trillion economy, delivers nearly 70% of the rain India needs to water farms and recharge reservoirs and aquifers.
- Nearly half of India's farmland, without any irrigation cover, depends on the annual June-September rains to grow several crops.
- The monsoon's late start could delay the planting of rice, cotton, corn, soybean and sugar cane.

**Q45. Consider the following statements with reference to the western disturbances:**

1. These are responsible to bring winter rains to northwest India.
2. These help farmers in India grow their kharif crop.
3. These are primary source of snowfall that replenishes the Himalayan glaciers during winter.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** Western Disturbances, a series of cyclonic storms that originate in the Mediterranean region, and travel over 9,000 km to bring winter rains to northwest India.
- **Statement 2 is incorrect:** The low-pressure storm systems help farmers in India grow their rabi crop, bring snow to the Himalayas and maintain the flow of the northern rivers. They reach the country riding on a wind system called the subtropical westerly jet stream that circles the Earth throughout the year.
- **Statement 3 is correct:** It is the main source of precipitation that refills the Himalayan glaciers in winter. Major Himalayan rivers like the Ganga, Indus, and Yamuna, as well as numerous mountain springs and rivulets, are fed by these glaciers.

**Q46: Consider the following statements related to cotton cultivation:**

1. Cotton grows well in drier parts of the black cotton soil of the Deccan plateau.
2. It is a rabi crop and requires 210 frost-free days and bright sun-shine for its growth.
3. Cotton is sensitive to water logging and required well drained soils.

**Which of the above mentioned statements is/are correct?**

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

**Ans: (a)**

**Explanation:**

- The original home of the cotton plant is India. The ruins of past civilizations revealed that in those days India was producing cotton. It used to spin yarn and weave cotton fabrics and export them to the Middle-East countries. Babylonians called cotton by the name Sindhu and Greeks named it Sindon.
- **Statement 1 is correct:** Cotton grows very well in drier parts of the 'black cotton soil' of the Deccan Plateau. Traditionally, the major producers are Gujarat and Maharashtra. The other producers include Punjab, Karnataka, Tamil Nadu and Madhya Pradesh.

- **Statement 2 is incorrect:** It requires high temperature, light rainfall or irrigation, 210 frost-free days and bright sun-shine for its growth. It is a kharif crop and requires 6 to 8 months to mature.
- **Statement 3 is correct:** Cotton is semi-tolerant to salinity and sensitive to water logging and thus prefers well drained soils.

**Q47. Consider the following pairs:**

Animal breed	Characteristics
1. Manda Buffalo	Well adapted to hills of eastern ghats
2. Monyul Cow	Reared by Monpa Community
3. Bhangor Buffaloes	Swamp buffalo of Tripura

**How many of the above pairs are correctly matched?**

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

**Ans: (c)**

**Explanation:**

- **Pair (1) is correct:** Manda buffalo is a sturdy buffalo, well adapted to hill ranges of Eastern Ghats and plateau of Koraput region of Odisha and is reared for draught, milk and manure. Daily milk production ranges between 1.2 to 3.7 kg with average milk fat as 8.4
- **Pair (2) is correct:** Monyul cattle of Tawang and West Kameng districts of Arunachal Pradesh. Monyul cattle are reared by the Monpa community for milk, manure, and draught and are smaller than Siri cattle of Sikkim. Monyul cows generally produce 2 to 3 kg milk in a day
- **Pair (3) is correct:** Bhangor buffaloes of Tripura are medium-size swamp type (48 chromosomes) generally grey to greyish-black with brown hairs. Milk yield varies between 1.5 and 2.5 litres/day.

**Q48: Consider the following statements regarding Millets:**

1. United Nations General Assembly declared 2023 as the International Year of Millets (IYM).
2. India accounts more than seventy percent of Asia's Production.
3. India has higher average millet yield than world's average yield.

**Which of the above mentioned statements is/are correct?**

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

**Ans: (d)**

**Explanation:**

- The original home of the cotton plant is India. The ruins of past civilizations revealed that in those days India was producing cotton. It used to spin yarn and weave cotton fabrics and export them to the Middle-East countries. Babylonians called cotton by the name Sindhu and Greeks named it Sindon.
- **Statement 1 is correct:** The United Nations General Assembly, in its 75th session during March 2021, declared 2023 the International Year of Millets (IYM).
- **Statement 2 is correct:** India produces more than 50.9 million tonnes (as per fourth advance estimate) of millet which accounts for 80 per cent of Asia's and 20 per cent of global production.
- **Statement 3 is correct:** The global average yield is 1229 kg/ha, whereas India has a higher average yield of 1239 kg/ha.

**Q49. Consider the following statements with reference to the "glacial retreat"?**

1. It refers to the process where size of glacier increases abruptly.
2. The amount of ice melting from the glacier exceeds the amount of new snow or ice accumulation.
3. Movement of tectonic plates does not impact glacial retreat.

**How many of the statements given above is/are correct?**

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is incorrect:** Glacial retreat refers to the process of a glacier shrinking or receding in size over time. The causes of glacial retreat can be complex and are often interrelated. One primary cause is rising global temperatures, which are largely attributed to human-caused greenhouse gas emissions.
- **Statement 2 is correct:** This occurs when the amount of ice melting or sublimating from the glacier exceeds the amount of new snow or ice accumulation.
- **Statement 3 is incorrect:** This increase in temperature leads to more intense melting of the glacier. Changes in precipitation patterns can also impact glacial retreat, as less snowfall or rainfall means less ice accumulation.

**Q50. Recently, Dvorak technique was in news, it is associated with which of the following:**

- (a) To measure the intensity of earthquake
- (b) To measure the intensity of tropical cyclones
- (c) New methods to conserve forests
- (d) To reduce pollution of NCR

**Ans: (b)**

**Explanation:**

- The Dvorak technique is a Cloud Pattern Recognition Technique (CPRT) based on a concept model of the development and decay of the tropical cyclone. It is a statistical method for estimating the intensity of tropical cyclones (TCs). **So, option (b) is correct.**
- It was first developed in 1969 and tested for observing storms in the northwest Pacific Ocean.
- From the satellite images the technique helps forecasters do a pattern recognition from the observed structure of the storm, locate its eye and estimate the intensity of the storm.

**Q51. Consider the following statements:**

1. It is the largest active volcano on the planet.
2. It is the southernmost island in the Hawaiian archipelago.
3. It sits immediately north of Kilauea volcano.

**Which of the following volcanoes is described in the above statements?**

- (a) Mauna Lao
- (b) Mount etna
- (c) Mount Pinatubo
- (d) Mount Pelee

**Ans: (a)**

**Explanation:**

**Mauna Lao:**

- Mauna Loa is the largest active volcano on the planet. It is the quintessential shield volcano in its shape signified by broad, rounded slopes. The volcano makes up roughly 51% of Hawaii Island and stands 13,681 feet above sea level.
- Mauna Loa is one of five volcanoes that together make up the Big Island of Hawaii. It is the southernmost island in the Hawaiian archipelago.
- It is situated right next to the Kilauea volcano, whose summit crater is currently experiencing an eruption. A well-known eruption from Kilauea in 2018 destroyed 700 homes and poured rivers of lava across farmland and into the ocean. So, option (a) is correct.

**Q52. Consider the following statements:**

1. The Barren Island volcano is an active volcano located in the Indian territory.
2. Barren Island lies about 140 km east of Great Nicobar.
3. The last time the Barren Island volcano erupted was in 1991 and it has remained inactive since then.

**Which of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2 and 3
- (c) Only 3
- (d) Only 1 and 3

**Ans: (a)**

**Explanation:**

- **Statement 1 is correct:** Barren Island is an island located in the Andaman Sea. It is the only confirmed active volcano in the Indian subcontinent and the only active volcano along a chain of volcanoes from Sumatra to Myanmar.
- **Statement 2 is incorrect:** It is a part of the Indian Union territory of Andaman and Nicobar Islands, and lies about 140 km northeast of the territory's capital, Port Blair.
- **Statement 3 is incorrect:** Since 1991, Barren Island volcano erupted several times. An eruption occurred at Barren Island in 2023 with ash to 15,000 ft altitude. In March 2020 satellite images showed ash emissions from Barren Island volcano.



**Q53. Consider the following statements with reference to the Cold wave:**

1. It is considered when the minimum temperature of a station is  $10^{\circ}\text{C}$  or less for plains.
2. Cold wave can cause heart attacks.
3. Factors like foggy nights, westerly winds are responsible for cold waves.

**How many of the statements given above is/are correct?**

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

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** According to the IMD, Cold Wave is considered when the minimum temperature of a station is  $10^{\circ}\text{C}$  or less for plains and  $0^{\circ}\text{C}$  or less for Hilly regions. While for coastal stations when minimum temperature departure is  $-4.5^{\circ}\text{C}$  or less over a station, "Cold Wave" may be described if the minimum temperature is  $15^{\circ}\text{C}$  or less.



- **Statement 2 is correct:** It has a severe impact on human health, varying from Cough and cold, bronchitis and respiratory diseases, Blood pressure issues, Skin problems, and even Bone, joint, and muscle pain due to lack of sunlight. It can raise your risk of heart and circulatory problems, such as heart attacks and strokes.
- **Statement 3 is correct:** various factors are responsible for cold wave like large scale fog, foggy nights, westerly winds.

**Q54. Consider the following statements:**

1. The Farakka Barrage Project facilitates sharing of Ganga waters between Bangladesh and India.
2. The Farakka Barrage Project was commissioned to increase the navigational depth of the Bhagirathi - Hooghly waterway.
3. Jangipur Barrage has been constructed across the river Bhagirath.

How many of the given statements is/are correct?

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

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** The Farakka Barrage Project also facilitates sharing of Ganga waters between Bangladesh and Govt. of India as per the Treaty between the Governments of Bangladesh and India on sharing of the Ganga waters at Farakka signed in 1996.
- **Statement 2 is correct:** The Farakka Barrage Project (FBP) was commissioned in 1975 for preservation and maintenance of the Shyama Prasad Mookerjee Port (erstwhile Kolkata Port) and for increasing then navigational depth of the Bhagirathi - Hooghly waterway
- **Statement 3 is correct:** The Jangipur barrage has been constructed across the river Bhagirathi near its off take from the river Ganga. The main function of the Jangipur barrage is to regulate the flow of Ganga water into the Bhagirathi and vice versa. It has 15 gates of 12.20 m span. A navigational lock on bypass channel alongside of Jangipur barrage was also constructed.

**Q55. Consider the following statements regarding Polavaram Irrigation Project (PIP):**

1. It is a multi-purpose irrigation project on the river Krishna.
2. The project envisages generation of hydro power.
3. The project has been declared as national project.

How many of the given statements is/are **incorrect**?

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is incorrect:** Polavaram Irrigation Project (PIP) is a multi-purpose irrigation project on the river Godavari near Ramayyapeta village of Polavaram mandal in West Godavari District of Andhra Pradesh for construction of a dam to create ultimate irrigation potential.
- **Statement 2 is correct:** The project also envisages generation of 960MW of hydro power, drinking water supply to a population of 28.50 lakh in 611 villages and diversion of 80 TMC of water to Krishna River basin.
- **Statement 3 is correct:** The project has been declared as a National Project as per section 90 of Andhra Pradesh Reorganization Act, 2014.

**Q56. Consider the following statements:**

1. Per capita water availability in the country is reducing progressively.
2. Annual per-capita water availability of less than 1,000 cubic meters is considered as water scarcity condition.

How many of the given statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** Water availability per person is dependent on population of the country. Per capita water availability in the country is reducing progressively. The average annual per capita water availability in the years 2001 and 2011 was assessed as 1,816 cubic meters and 1,545 cubic meters respectively which may further reduce due to increase in population.
- **Statement 2 is correct:** Annual per-capita water availability of less than 1,700 cubic meters is considered as water-stressed condition, whereas annual per-capita water availability below 1,000 cubic meters is considered as a water scarcity condition.

**Q57. Consider the following pairs:**

Dam	River
1. Gosikhurd Irrigation Project	Wainganga
2. Shahpurkandi Dam	Beas
3. Lakhwar Dam	Yamuna

How many of above pairs is/are **incorrect**?

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

**Ans: (a)**

**Explanation:**

- **Pair 1 is correct:** GosiKhurd Irrigation Project also known as Indira Sagar Irrigation Project is one of the major irrigation projects in Godavari basin in Indian state Maharashtra in the Bhandara district on the river Wainganga.
- **Pair 2 is incorrect:** The Shahpurkandi Dam project is located on the Ravi River in Pathankot district, Punjab, India. It is a hydroelectric power plan.
- **Pair 3 is correct:** Lakhwar Project is a part of Lakhwar Vyasi multipurpose scheme located on the river Yamuna in district Dehradun of Uttarakhand. Lakhwar Vyasi project has three major components-Lakhwar dam, Vyasi dam and Katapathar barrage.

**Q58. Consider the following statements regarding Hematite Ore:**

1. The main deposits of haematite ore are in Keonjhar and Bailadila.
2. It is known for its distinctive reddish-brown to black metallic luster.
3. It is commonly found in igneous rock.

How many of the given statements is/are correct?

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** India is one of the largest producers of hematite and iron ore in the world. The state of Odisha, particularly the Keonjhar and Sundargarh districts, is known for its rich hematite deposits. Other states like Jharkhand, Chhattisgarh (Bailadila), and Karnataka also have significant hematite resources.
- **Statement 2 is correct:** Hematite is a mineral and a common form of iron oxide. It is known for its distinctive reddish-brown to black metallic luster. The name "hematite" is derived from the Greek word "haima," which means blood, due to its reddish colour when it is powdered or in a fine-grained form.
- **Statement 3 is incorrect:** Hematite is commonly found in sedimentary rocks, especially those of chemical or biochemical origin. It forms as a precipitate from water solutions or as a result of chemical reactions in aqueous environments. Sedimentary deposits of hematite can occur in banded iron formations (BIFs), which are important sources of iron ore.

**Q59. Consider the following statements regarding:**

1. Bituminous coals are hydrophobic.
2. Lignite is mainly found in Jammu and Kashmir in India
3. Peat is last stage transformation of decay to coal.

How many of the given above statements is/are correct?

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

**Ans: (a)**

**Explanation:**

Coal is classified into four main types, or ranks: anthracite, bituminous, subbituminous, and lignite. The ranking depends on the types and amounts of carbon the coal contains and on the amount of heat energy the coal can produce.

- **Statement 1 is correct:** Bituminous coals are hydrophobic, float easily, and therefore forward flotation is a common practice.
- **Statement 2 is incorrect:** In India Anthracite coal is found only in Jammu and Kashmir and that too in small quantity.
- **Statement 3 is incorrect:** First stage of transformation. Contains sufficient volatile matter and lot of moisture [more smoke and more pollution].

**Q60. Consider the following pairs:**

Tribe	Pre-dominantly found in
1. Bushmen	Botswana
2. Hausa	Kenya
3. Zulu	Nigeria

How many of the pair is/are correct?

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

**Ans: (a)**

**Explanation:**

- **Pair 1 is correct:** The San are the oldest inhabitants of Southern Africa, where they have lived for at least 20, 000 years. There are many different San groups - they have no collective name for themselves, and the terms 'Bushman', 'San', 'Basarwa' (in Botswana) are used. The term, 'bushman', came from the Dutch term, 'bossiesman', which meant 'bandit' or 'outlaw'. They are mainly live in Botswana, Namibia, South Africa, Angola and Zimbabwe.



- **Pair 2 is incorrect:** Hausa, people found chiefly in northwestern Nigeria and adjacent southern Niger. They constitute the largest ethnic group in the area.
- **Pair 3 is incorrect:** Zulu people are of Nguni-speaking people in KwaZulu-Natal province, South Africa. They are a branch of the southern Bantu and have close ethnic, linguistic, and cultural ties with the Swazi and Xhosa.

**Q61. Consider the following pairs:**

Types of Settlement	Features
1. Star-like Pattern	Settle around Hill
2. Linear	Along places with several roads converge
3. Nebular	Settle along roads

How many of the above pairs is/are correct?

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

**Ans: (d)**

**Explanation:**

- **Pair 1 is incorrect:** The star-like pattern of rural settlements develops at the sites and places where several roads converge. In fact, such settlement are associated with nodal locations of settlements where several roads converge at a site and the rows of the houses spread along the roads in all directions.
- **Pair 2 is incorrect:** Linear settlements are those which develop in alone and acquire a linear shape mainly along roads, railway tracks, canals, etc.
- **Pair 3 is incorrect:** When the shape of a settlement resembles a nebula, it is termed as nebular pattern of rural settlement. These settlements may be on a hillock opr a mound nad their size is generally small.

**Q62. Census of India defines Urban places as:**

1. A minimum population of five thousand.
2. At least two-third male working population engaged in non-agricultural economic activities.
3. A density of population of at least 400 person per sq km.

How many of the above statements is/are correct?

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

**Ans: (b)**

**Explanation:**

- The definition of urban places as per census of India:
  - A minimum population of 5000
  - At least 75 per cent of the male working population engaged in non-agricultural economic activities.
  - A density of population of at least 400 person per sq km. **So, option (b) is correct.**
- All areas under statutory urban administrative units like Municipal Corporation, Municipality, Cantonment Board, Notified Town Area Committee, Town Panchayat, Nagar Palika, etc., are known as Statutory Towns.

**Q63.Consider the following statements:**

1. Hamletted settlements can grow from immigration congregated into some families of agricultural labourers.
2. Dispersed settlement are common in Tarai region of Uttar Pradesh.

Which of the above given statements is/are **incorrect**?

- (a) Only 1
- (b) Only 2

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

**Ans: (d)**

**Explanation:**

- **Statement 1 is correct:** The semi-compact settlement or Hamletted Settlements is an intermediary type of settlement, marked by the presence of one easily recognisable site and one or more small hamlets closely linked with the main site by foot-paths, cart-tracks or roads. One of the main reason of growth is immigration which congregated into some families of the agricultural labourers from outside of village.
- **Statement 2 is correct:** The dispersed or Sprinkled settlements is characterised by complete diffusion of farmsteads over the entire village land. Main causes of dispersed settlements are mountainous and forested areas, poor soil, scarcity of arable land etc. They are also found in the agricultural areas like Tarai regions of Uttar Pradesh and Uttarakhand.

**Q64. Which one of the following best describes development?**

- (a) an increase in size  
(b) a positive change in quality  
(c) constant in size  
(d) a simple change in the quality

**Ans: (b)**

**Explanation:**

- Development means a qualitative change which is always value positive. This means that development cannot take place unless there is an increment or addition to the existing conditions.
- Development occurs when positive growth takes place. Yet, positive growth does not always lead to development. Development occurs when there is a positive change in quality. **So, option (b) is correct.**

**Q65. Consider the following statements:**

1. Equity
2. Sustainability
3. Productivity
4. Empowerment

**Which of the above mentioned are pillars of Human Development?**

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

**Ans: (d)**

**Explanation:**

**Four pillars of Human Development:**

- **Equity:** It refers to making equal access to opportunities available to everybody. The opportunities available to people must be equal irrespective of their gender, race, income and in the Indian case, caste.
- **Sustainability:** It means continuity in the availability of opportunities. To have sustainable human development, each generation must have the same opportunities. All environmental, financial and human resources must be used keeping in mind the future.
- **Productivity:** It means human labour productivity or productivity in terms of human work. Such productivity must be constantly enriched by building capabilities in people. Ultimately, it is people who are the real wealth of nations.
- **Empowerment:** It means to have the power to make choices. Such power comes from increasing freedom and capability. Good governance and people-oriented policies are required to empower people. **So, option (d) is correct.**

**Q66. Consider the following minerals:**

1. Bentonite
2. Chromite
3. Kyanite
4. Sillimanite

In India, which of the above is/are officially designated as major minerals?

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

**Ans: (d)**

**Explanation:**

- Bentonite is absorbent aluminium phyllosilicate clay. It is named after Fort Benton, Wyoming where its largest sources are found. Its other name, Montmorillonite clay, stems from the region of France called Montmorillonite, where it was first found.
- Chromite, Kyanite and Sillimanite are few of the major minerals. Chromite is most commonly found as an accessory mineral in iron- and magnesium-rich igneous rocks or concentrated in sediments derived from them. It occurs as layers in a few igneous rocks that are especially rich in iron and magnesium.
- Kyanite is a mineral found mainly in metamorphic rocks. It most often forms from the high-pressure alteration of clay minerals during the metamorphism of sedimentary rocks.
- Sillimanite or is one of three aluminosilicate polymorphs, the other two being andalusite and kyanite **So, option (d) is correct.**

**Q67. Siachen Glacier is situated to the**

- (a) East of Aksai Chin
- (b) East of Leh
- (c) North of Gilgit
- (d) North of Nubra Valley

**Ans: (d)**

**Explanation:**

Siachen Glacier, piedmont glacier located in the Karakoram Range. It lies in the heavily glaciated Himalayan region known as the "Third Pole," because mountain glaciers in this region contain more fresh water than is found anywhere else on Earth except for the polar ice caps.

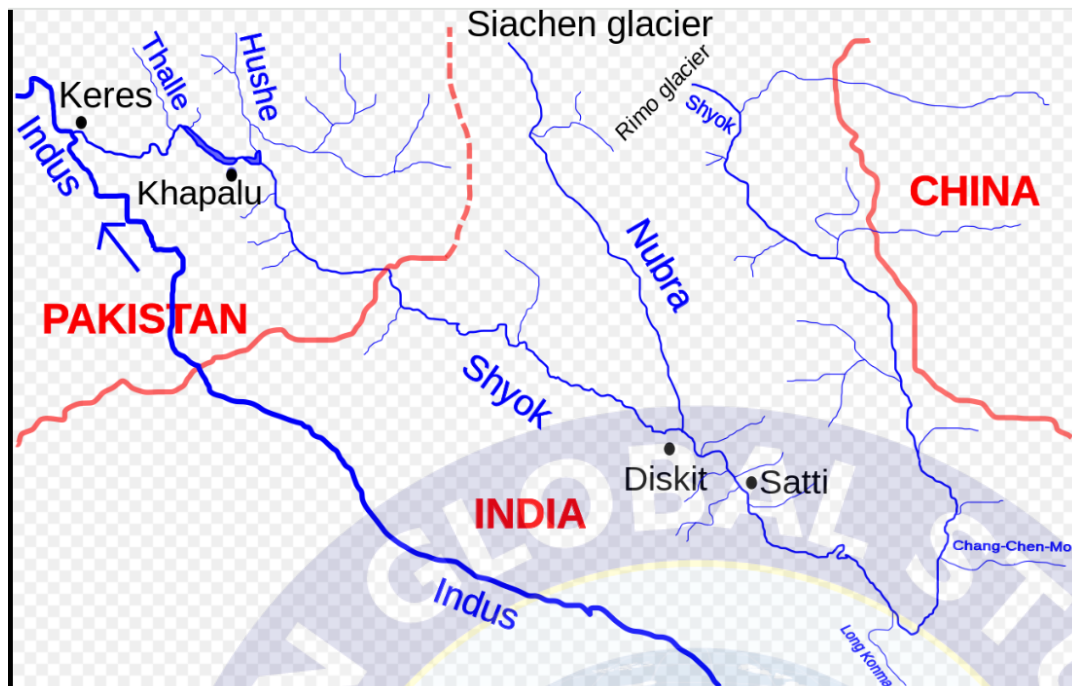
Nubra, also called Dumra its Tibetan name Dumra means "valley of flowers" Siachen glacier located nother of the valley. **So, option (d) is correct.**



**KHAN SIR**







**Q68: Consider the following pairs:**

River	Flows into
1. Mekong	Andaman Sea
2. Thames	Irish Sea
3. Volga	Caspian Sea
4. Zambezi	Indian Ocean

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

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

**Ans: (c)**

**Explanation:**

- **Pair 1 is incorrect:** The Mekong drains into the South China Sea through the Mekong Delta in Vietnam.
- **Pair 2 is incorrect:** The Thames runs for over 360 km from Kemble in Gloucestershire to Southend-on-Sea in Essex, where it flows into the North Sea.
- **Pair 3 is correct:** The Volga River is the longest river in Europe and runs through Russia with its delta flowing into the Caspian Sea just south of the Kazakhstan border.
- **Pair 4 is correct:** The Zambezi river flows eastward for about 3,540 kilometres from its source on the Central African Plateau to empty into the Indian Ocean.

**Q69. Consider the following statements:**

- 1. Coal ash contains arsenic, lead and mercury.
- 2. Coal-fired power plants release sulphur dioxide and oxides of nitrogen into the environment.
- 3. High ash content is observed in Indian coal.

Which of the statements given above is/are correct?

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

**Ans: (d)**

**Explanation:**

**Statement 1 is correct:** Coal ash contains contaminants like mercury, lead, cadmium and arsenic. Without proper management, these contaminants can pollute waterways, ground water, drinking water, and the air.

**Statement 2 is correct:** Unfortunately, Coal-fired power plants releases many harmful gases like sulphur dioxides and oxides of nitrogen into environment.

**Statement 3 is correct:** India's domestic coal reserves have a high ash content—up to 40 to 45 percent.

**Q70. Consider the following statements with reference to the transhumance:**

1. It is a form of nomadism in which people migrate from plain area to pasture on mountains.
2. Gujjars, Bakarwals, Gaddis and Bhotia's are a few examples of transhumance.
3. It is confined to Himalayas only.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- Movement in search of pastures is undertaken either over vast horizontal distances or vertically from one elevation to another in the mountainous regions.
- **Statement 1 is correct:** The process of migration from plain areas to pastures on mountains during summers and again from mountain pastures to plain areas during winters is known as transhumance.
- **Statement 2 is correct:** In mountain regions, such as Himalayas, Gujjars, Bakarwals, Gaddis and Bhotiyas migrate from plains to the mountains in summers and to the plains from the high-altitude pastures in winters.
- **Statement 3 is incorrect:** Similarly, in the tundra regions, the nomadic herders move from south to north in summers and from north to south in winters.

**Q71. Consider the following statements with reference to the "truck farming"?**

1. The regions where farmers specialise in fruits, commercial herding, large scale plantation.
2. The distance of truck farms from the market is governed by the distance that a truck can cover overnight.

**Select the correct answer using the code given below:**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** The regions where farmers specialise in vegetables only, the farming is known as truck farming. Truck farming is practiced in the peripheral areas of Metropolitan cities.
- It is usually less intensive and diversified than market gardening. At first this type of farming depended entirely on local or regional markets.
- **Statement 2 is correct:** The distance of truck farms from the market is governed by the distance that a truck can cover overnight, hence the name truck farming.

**Q72. Consider the following pairs:**

- |    | Type         | Related to            |
|----|--------------|-----------------------|
| 1. | Viticulture  | Cultivation of grapes |
| 2. | Pomiculture  | Rearing of birds      |
| 3. | Pisciculture | Rearing of fish       |

**How many of the above pairs is/are correct?**

- (a) Only one
- (b) Only two
- (c) All three
- (d) None of the above

**Ans: (b)**

**Explanation:**

- **Pair 1 is correct:** Viticulture is the cultivation and harvesting of grapes which deals with the series of events that occur in the vineyard. When the grapes are used for winemaking, it is known as viniculture.
- **Pair 2 is incorrect:** Pomiculture is the art and science of growing apples, an occupation that combines both ancient knowledge and cutting-edge agricultural science.
- **Pair 3 is correct:** Pisciculture is a process of growing fish and selling it or using its products for domestic or commercial use. Fish can be grown in freshwater or saltwater environments.

**Q73. "The model of Kolkhoz" is associated with which of the following?**

- (a) Mining
- (b) collective farming
- (c) Household industries
- (d) Fourth Industrial revolution

**Ans: (b)**

**Explanation:**

- The Model of Kolkhoz is associated with the collective farming. It was introduced in erstwhile Soviet Union to improve upon the inefficiency of the previous methods of agriculture and to boost agricultural production for self-sufficiency.
- The basic principle behind the collective farming is based on social ownership of the means of production and collective labour.
- The farmers used to pool in all their resources like land, livestock and labour. However, they were allowed to retain very small plots to grow crops in order to meet their daily requirements. **So, option (b) is correct.**

**Q74. Consider the following statements with reference to the "footloose industries":**

1. These are highly dependent on raw material.
2. It can employ a large-scale population.
3. These are generally not polluting industries.

**How many of the statements given above is/are correct?**

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

**Ans: (a)**

**Explanation:**

- **Statement 1 is incorrect:** Footloose industry refers to an industry that can be located at any place without effect from factors of production such as resources, land, labour, and capital. They are not dependent on any specific raw material, weight losing or otherwise.
- **Statement 2 is incorrect:** These industries do not have strong preferences for location as the necessary resources can be found in multiple locations, making them prone to relocation. Hence, they produce in small quantity and also employ a small labour force.
- **Statement 3 is correct:** These are generally not polluting industries. The important factor in their location is accessibility by road network.



**Q75. Consider the following:**

1. Specialisation in more than one crop
2. Good system of transportation
3. Large capital investment
4. Scientific method of cultivation

**Which of the above are characteristics of the Plantation Agriculture?**

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

**Ans: (b)**

**Explanation:**

- Plantation agriculture is the clearing of forest or land to create an area of farming for one specific crop, which is grown on a large scale.
  - This type of intensive, commercial farming method is typically owned by a single company or government, and this owner employs labourers to work on the plantation.
  - Characteristics of the Plantation Agriculture:
    - Large estates or plantations
    - Large capital investment
    - Managerial and technical support
    - Scientific methods of cultivation
    - Single crop specialisation
    - Cheap labour
    - A good system of transportation
- So, option (b) is correct.**

**Q76: Consider the following statements regarding Sahara Desert:**

1. Snowfall is not unprecedented in the Desert.
2. Desert experience one of the highest diurnal temperature variation.

**Which of the above mentioned statement(s) is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- **Statement 1 is correct:** Snowfall in a hot desert may seem a contradiction but snow has been recorded several times in the Sahara Desert over the last decades, most recently in January 2022. Thus, snowfall may be unusual but is not unprecedented in the region.
- **Statement 2 is correct:** Due to lack of cloud cover and very low humidity, the desert usually has high diurnal temperature variations between days and nights. The average annual temperature is 30°C, whilst the hottest temperature ever recorded was 58°C. Despite many thinking of the Sahara as a constantly hot climate, temperatures drop dramatically at night, due to the lack of humidity, and can reach lows of -6°C.

**Q77: Consider the following statements regarding Forest Survey Report 2021?**

1. Total carbon stock in country's forest increased.
2. Andhra Pradesh witnessed maximum increase in forest cover.
3. Report include a new chapter of Lion conservation area of India.

**How many of the above mentioned statements is/are correct?**

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

(d) 1,2 and 3

**Ans: (d)**

**Explanation:**

- India State of Forest Report 2021' prepared by the Forest Survey of India (FSI).
- **Statement 1 is correct:** Total carbon stock in country's forest is estimated to be 7,204 million tonnes, an increase of 79.4 million
- **Statement 2 is correct:** Maximum increase in forest cover witnessed in Andhra Pradesh (647 sq km) followed by Telangana (632 sq km) and Odisha (537 sq km).
- **Statement 3 is correct:** In the present ISFR 2021, Forest survey of India (FSI) has included a new chapter related to the assessment of forest cover in the Tiger Reserves, Corridors and Lion conservation area of India.

**Q78: Consider the following statements regarding 'Baiga tribe'?**

1. These are ethnic group found in Western ghats.
2. Tribe is a Particularly Vulnerable Tribe.
3. Tribe practice shifting cultivation.

How many of the above mentioned statements is/are correct?

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** Baiga Tribal group gets habitat rights in Chhattisgarh. They become the second tribe to get habitat right in the Chattishgarh. The Baiga Particularly Vulnerable Tribale Group (PVTG) are an ethnic group found in central India primarily in the state of Madhya Pradesh, and in smaller numbers in the surrounding states of Chhattisgarh and Jharkhand etc.
- **Statement 2 is correct:** The Baiga is a Particularly Vulnerable Tribale group (PVTG) in Madhya Pradesh and Chattishgarh.
- **Statement 3 is correct:** The Baiga tribes practice shifting culttiavtion, called 'bewar' or 'dahiya'.

**Q79: Consider the following statements:**

1. Registrar general of India release maternal mortality ratio.
2. Maternal Mortality Ratio declined to 97 per lakh live births in 2018-20.
3. Kerala has the lowest maternal mortality ratio.

How many of the above mentioned statements is/are correct?

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

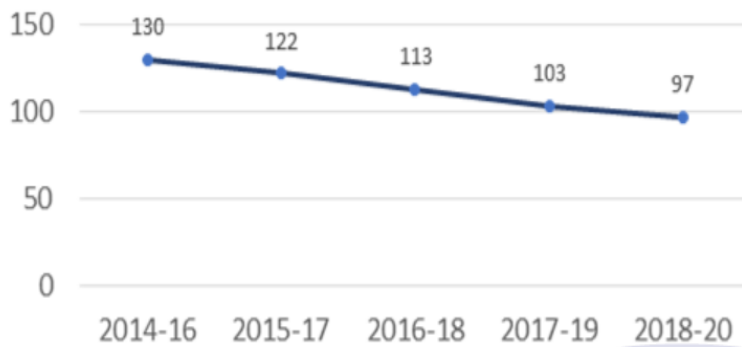
**Ans: (c)**

**Explanation:**

Maternal mortality refers to deaths due to complications from pregnancy or childbirth.

**Statement 1 is correct:** Maternal Mortality Ratio (MMR) released by the Registrar General of India (RGI).

**Statement 2 is correct:** Maternal Mortality Ratio (MMR) declined from 130 in 2014-16 to 97 per lakh live births in 2018-20.



**Statement 3 is correct:** In 2018-20, Kerala had the lowest mortality ratio with 19 fatalities during pregnancy followed by Maharashtra (33), then Telangana (43) and Andhra Pradesh (45), Tamil Nadu (54), Jharkhand (56), Gujarat (57) and Karnataka (69).

**Q80. Which of the following is not a part of Quinary Activities?**

1. Communication
2. Research and Development based
3. Decision makers
4. Agriculture

**Select the correct answer using the code given below:**

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

**Ans: (c)**

**Explanation:**

- Quinary activities are services that focus on the creation, re-arrangement and interpretation of new and existing ideas; data interpretation and the use and evaluation of new technologies.
- Since services are a part of the tertiary sector, communications are related to it. The process of exchanging opinions with one another is called communication. Because it deals with all kinds of services, the tertiary sector is sometimes referred to as the service sector.
- It consists of intellectual activities. Financial planning, consulting, Research and Development, and other related fields are examples of the Quaternary sector.
- The category of workers classified as "white collar" is known as the quinary sector of the economy. Quinary activities are those carried out by policymakers or decision-makers at the highest level.
- Agriculture is a primary activity, which produces most of the food that we consume. Besides food grains, it also produces raw material for various industries.
- **Hence option (c) is correct.**

**Q81. Which of the following best explains the term "Packet Station"?**

- (a) These ports deal in the processing and shipping of oil.
- (b) These are collection centres where the goods are brought from different countries for export.
- (c) These were originally developed as calling points on main sea routes where ships used to anchor for refuelling.
- (d) These ports exclusively concerned with the transportation of passengers and mail across water bodies covering short distances.

**Ans: (d)**

**Explanation:**

- These are also known as ferry ports. These packet stations are exclusively concerned with the transportation of passengers and mail across water bodies covering short distances.
- These stations occur in pairs located in such a way that they face each other across the water body, e.g. Dover in England and Calais in France across the English Channel.



- So, option (d) is correct.

**Q82. Consider the following statements:**

1. Recently, scientists discovered a 72-kilometer fault line on Canada's Vancouver Island.
2. Faults does not allow the blocks to move relative to each other.
3. Fault Line is a line determined by the intersection of a geological fault and the earth's surface.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** A team of geologists, mineralogists, and Earth and ocean scientists affiliated with institutions in Canada, the U.S., and France recently discovered a 72-kilometer fault line on Canada's Vancouver Island.
- **Statement 2 is incorrect:** A fault is a fracture or zone of fractures between two blocks of rock. Faults allow the blocks to move relative to each other. This movement may occur rapidly, in the form of an earthquake - or may occur slowly, in the form of creep. Faults may range in length from a few millimetres to thousands of kilometres.
- **Statement 3 is correct:** Fault Line is a line determined by the intersection of a geological fault and the earth's surface. A fault line is a long crack in the surface of the earth. Earthquakes usually occur along fault lines.

**Q83. Recently, Indian government has decided to construct an international container transshipment port at Great Nicobar Island. What could have been the positive outcome for India?**

1. It can help India to become a \$ 5 trillion economy.
2. It will contribute to cost reduction, trade security.
3. It will make India debt free within a year.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** The vital role of transshipment in India's aspirations to become a \$ 5 trillion economy. He emphasises the importance of optimising logistics and reducing costs for trade, underscoring the strategic need for a transshipment port to facilitate these goals.
- **Statement 2 is correct:** This port has transformative potential contribute to cost reduction, trade security, and increased containerisation of cargo. The growing size of container ships, larger vessels can significantly reduce transportation costs.
- **Statement 3 is incorrect:** This port will have other benefits such as forex savings, foreign direct investment, increased economic activity at other Indian Ports which will help to reduce India's debt but not eliminate it within a year.

**Q84. A term "Amaterasu" was in news recently, it is associated with which of the following:**

- (a) A comet
- (b) An asteroid
- (c) Cosmic ray
- (d) An Exoplanet

**Ans: (c)**

**Explanation:**

- Scientists recently detected the most powerful cosmic ray seen in more than three decades, which has been named 'Amaterasu'. It has been named Amaterasu after the Japanese sun goddess.
- It has an energy exceeding 240 exa-electron volts (EeV). That is millions of times more than particles produced in the Large Hadron Collider, the most powerful accelerator ever built, and equivalent to the energy of a golf ball travelling at 95 mph.
- Cosmic Rays are echoes of violent celestial events that have stripped matter of its subatomic structures and hurled it through the universe at nearly the speed of light.
- Essentially, cosmic rays are charged particles with a wide range of energies consisting of positive protons, negative electrons, or entire atomic nuclei that travel through space and rain down onto Earth nearly constantly. **So, option (c) is correct.**

**Q85. Consider the following statements with reference to Radio Galaxy:**

1. These are driven by thermal emissions.
2. They are much bigger than most of the other galaxies in the universe.
3. Proxima Centauri is the name of first radio galaxy.

**How many of the statements given above is/are correct?**

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

**Ans: (a)**

**Explanation:**

- Radio Galaxies, also known as radio-luminous galaxies or radio-loud galaxies, are a particular type of active galaxy that emits more light at radio wavelengths than at visible wavelengths.
- **Statement 1 is incorrect:** Radio galaxies are driven by non-thermal emissions. Radio telescopes show that some radio galaxies, called extended radio galaxies, have lobes of radio emission extending millions of light-years from their nuclei.
- **Statement 2 is correct:** Radio galaxies are much bigger than most of the other galaxies in the universe.
- **Statement 3 is incorrect:** The first radio galaxy to be discovered, and still the brightest, is called Cygnus A. A concentrated radio source in Cygnus was discovered by Grote Reber in 1939. In 1946 Stanley Hey and his colleague James Phillips identified that the source scintillated rapidly, and must therefore be a compact object.
- Proxima Centauri is an exoplanet orbiting within the habitable zone of the red dwarf star Proxima Centauri, which is the closest star to the Sun and part of the larger triple star system Alpha Centauri.

**Q86. Arrange the following blue flag beach from South to North of India:**

1. Ghogla beach
2. Kappad Beach
3. Kasarkod Beach
4. Rushikonda Beach

Select the correct answer from the given codes:

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

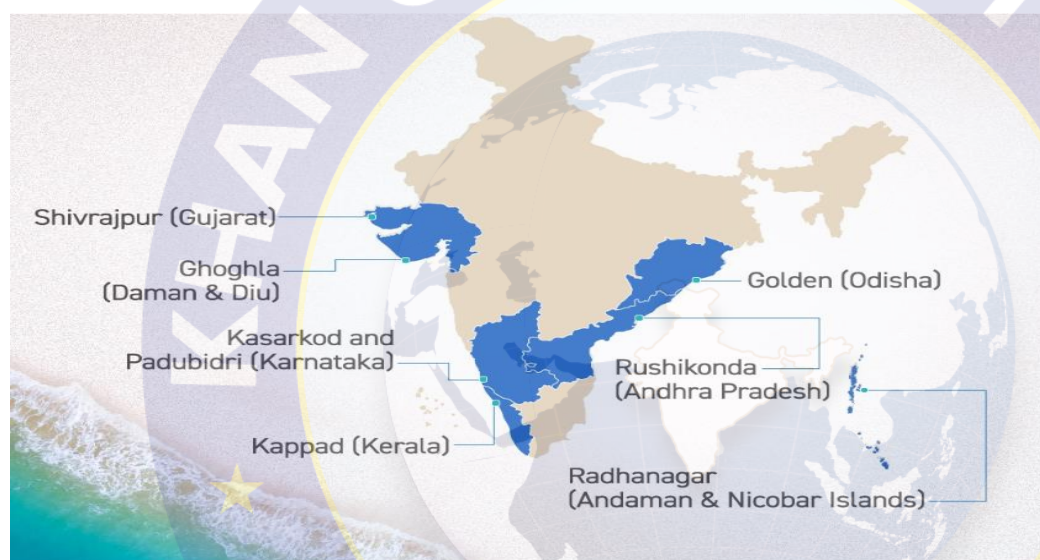
**Ans: (a)**

**Explanation:**

The iconic Blue Flag is one of the world's most recognised voluntary awards for beaches, marinas, and sustainable tourism boats. In order to qualify for the Blue Flag, a series of stringent environmental, educational, safety, and accessibility criteria must be met and maintained.

- Golden Beach – Odisha.
- Shivrajpur Beach – Gujarat.
- Kappad Beach – Kerala.
- Ghoghla Beach – Diu.
- Radhanagar Beach – Andaman and Nicobar.
- Kasarkod Beach – Karnataka.
- Padubidri Beach – Karnataka.
- Rushikonda Beach – Andhra Pradesh.
- Eden Beach-Puducherry
- Kovalam Beach- Tamil Nadu
- Thundi Beach-Lakshadweep
- Kadmat Beach-Lakshadweep

So, option (a) is correct.



**Q87 Consider the following statements:**

1. Robusta coffee contains twice as much caffeine as arabica coffee.
2. Robusta coffee originated in west Africa
3. Columbia is the largest producer of arabica coffee.

**How many of the statements given above is/are correct?**

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

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** Robusta coffee bean derived from the *coffea canephora* plant native to Sub-Saharan Africa, robusta coffee contains twice as much caffeine as arabica coffee.
- **Statement 2 is correct:** The Robusta coffee variety originated in Central and West Africa. At the end of the 19th century, the discovery of Robusta in the Congo opened the way for coffee cultivation on lowland areas.
- **Statement 3 is incorrect:** Brazil is the largest producer of arabica coffee in the world. It is widely grown coffee and accounts for 90% of the world's total coffee production.

**Q88. Consider the following statements regarding zero budget natural farming:**

1. Bijamrita helps in protecting young roots from fungus.
2. Subhash Palekar counters the over-reliance on irrigation in green revolution farming.

**How many of the statements given above is/are correct?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**

**Explanation:**

- Padma shri Subhash Palekar an Indian agriculturist who practiced and has written many books about Zero Budget Natural Farming (ZBNF). It is a method of farming where the cost of growing and harvesting plants is zero. This means that farmers need not purchase fertilizers and pesticides in order to ensure the healthy growth of crops.
- **Statement 1 is correct:** A treatment used for seeds, seedlings or any planting material, Bijamrita helps in protecting young roots from fungus, as well as from soil-borne and seed-borne diseases that commonly affect plants post the period of monsoon.
- **Statement 2 is correct:** Palekar opposes the common belief that the plant roots need a lot of water. In this respect, he counters the over-reliance on irrigation in green revolution farming. He strongly opines that the roots need water vapour. This he says as Whapasa is the condition in which the soil contains both air and water molecules. He encourages the reduction of irrigation and emphasizes its usage only during noon.
- Pillars of Zero Budget Natural Farming (ZBNF):
  - Jeevamrutha
  - Bijamrita
  - Acchadana (Mulching)
  - Whapasa (Moisture)

**Q89. Vadhavan Port is located in which of the following State?**

- (a) Gujarat
- (b) Goa
- (c) Andhra Pradesh
- (d) Maharashtra

**Ans: (d)**

**Explanation:**

- Vadhavan Port is a proposed Rs 75,000 crore container port project at Vadhavan village in Maharashtra.
- The port will be developed as a joint venture by the Jawaharlal Nehru Port Authority (JNPA) and the Maharashtra Maritime Board (MMB).
- The new port has a natural draft of about 20 metres close to the shore, making it possible for it to handle bigger vessels.
- It will enable the call of container vessels of 16,000- 25,000 TEUs (twenty-foot equivalent units) capacity, giving advantages of economies of scale and reducing logistics cost.
- It will be designed to handle around 254 million tonnes (MT) of cargo.
- It will be developed as a Green Port. It is planning to provide green fuel to ships coming to the port, and the construction and operations are planned to keep in mind the environmental issues.
- **So, option (d) is the correct**

**Q90. The term “Tej”, “Hamoon” were in news recently, it is associated with which of the following:**

- (a) Cyclonic storm over Bay of Bengal
- (b) Earthquake in Japan
- (c) Near earth object
- (d) A carbonaceous asteroid in the Apollo group



**Ans: (a)**

**Explanation:**

- The cyclonic storm “Hamoon” that has formed over the Bay of Bengal has rapidly intensified into a severe cyclonic storm as per recent reports.
- Cyclone Hamoon is brewing near India over the Bay of Bengal.
- Southern states in India are likely to witness rainfall this week.
- According to the India Meteorological Department (IMD), a deep depression over the West central Bay of Bengal likely to intensify into a Cyclonic Storm during the next 6 hours.
- Cyclones Tej and Hamoon are considered to be twin cyclones that developed over the north Indian Ocean.

**So, option (a) is correct.**

**Q91. Which of the following is correct about the “Phreatomagmatic eruption”:**

- (a) A type of volcanic eruption where lava flows from the vent in a relatively gentle, low-level eruption.
- (b) An eruption that involves both magma and water, which typically interact explosively, leading to concurrent ejection of steam and pyroclastic fragments.
- (c) An eruptions in which intermediate viscous magma within the volcano make it difficult for vesiculate gases to escape.
- (d) An eruption in which lava erupting nearly continuously for centuries.

**Ans: (b)**

**Explanation:**

- An eruption that involves both magma and water, which typically interact explosively, leading to concurrent ejection of steam and pyroclastic fragments.
- Phreatomagmatic ash is formed by the same mechanism over a wide range of basic and acidic compositions. A blocky and uniform crust with low vesicle content is formed.
- Deposits from phreatomagmatic eruptions are thought to be better classified and finer-grained than those from magmatic eruptions.
- This is the result of higher fragmentation of phreatomagmatic eruptions. **So, option (b) is correct.**

**Q92. Consider the following statements:**

1. This soil is also known as the ‘Regur Soil’.
2. They swell and become sticky when wet and shrink when dried.
3. This soil retains the moisture for a very long time.

**Which of the following soil is discussed in abovementioned statements?**

- (a) Laterite soil
- (b) Black soil
- (c) Arid soil
- (d) Peaty soil

**Ans: (b)**

**Explanation:**

- Black soil covers most of the Deccan Plateau which includes parts of Maharashtra, Madhya Pradesh, Gujarat, Andhra Pradesh and some parts of Tamil Nadu.
- These soils are also known as the ‘Regur Soil’ or the ‘Black Cotton Soil’. The black soils are generally clayey, deep and impermeable. They swell and become sticky when wet and shrink when dried.
- During the dry season, these soils develop wide cracks. Thus, there occurs a kind of ‘self-ploughing’. Because of this character of slow absorption and loss of moisture, the black soil retains the moisture for a very long time, which helps the crops, especially, the rain fed ones, to sustain even during the dry season.
- **So, option (b) is correct.**

**Q93. Consider the following statements:**

1. The laterite soils develop in areas with low temperature and high rainfall.
2. The laterite soils are suitable for cultivation even without application of manures and fertilisers.

Which of the statements given above is/are correct?

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

Ans: (d)

Explanation:

- Laterite has been derived from the Latin word 'Later' which means brick.
- **Statement 1 is incorrect:** The laterite soils develop in areas with high temperature and high rainfall. These are the result of intense leaching due to tropical rains. With rain, lime and silica are leached away, and soils rich in iron oxide and aluminium compound are left behind.
- **Statement 2 is incorrect:** These soils are poor in organic matter, nitrogen, phosphate and calcium, while iron oxide and potash are in excess. Hence, laterites are not suitable for cultivation; however, application of manures and fertilisers are required for making the soils fertile for cultivation. Humus content of the soil is removed fast by bacteria that thrives well in high temperature.

**Q94. The black cotton soil of India has been formed due to the weathering of**

- (a) brown forest soil
- (b) fissure volcanic rock
- (c) granite and schist
- (d) shale and limestone

Ans: (b)

Explanation:

- Black soil formation is mostly dependent on the source rock composition and the surrounding climate. These soils are also known as the 'Regur Soil' or the 'Black Cotton Soil'.
- Lava flows, or fissured volcanic rock, comprise the black soil that is characteristic of the Deccan trap (basalt) region that is stretched across the northwest Deccan plateau.
- A portion of Gujarat, Andhra Pradesh, Maharashtra, Madhya Pradesh, and a portion of Tamil Nadu are included in the Deccan Plateau. The higher portions of the Godavari and Krishna rivers, as well as areas of Tamil Nadu, north Maharashtra, Madhya Pradesh, Gujarat, and Andhra Pradesh, are covered in black soil.
- **So, option (b) is correct.**

**Q95. With reference to 'Changpa' community of India, consider the following statements:**

1. They live mainly in the State of Uttarakhand.
2. They rear the Pashmina goats that yield a fine wool.
3. They are kept in the category of Scheduled Tribes.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- **Statement 1 is incorrect:** The Changpa or Champa are a semi-nomadic Tibetan people found mainly in the Changtang in Ladakh, India. A smaller number resides in the western regions of the Tibet Autonomous Region and were partially relocated for the establishment of the Changtang Nature Reserve.
- **Statement 2 is correct:** They herd Changthangi (Pashmina) goats and are among the few suppliers of authentic cashmere wool of the finest quality.
- **Statement 3 is correct:** As of 2001, the Changpa were classified as a Scheduled Tribe under the Indian government's reservation program of affirmative action.

**Q96. Consider the following statements:**

1. The India is the third largest fish producing country in the world.
2. Gujarat is the largest fish producing state of India.

**How many of the statements given above is/are incorrect?**

- (a) Only 1
- (b) Only 2
- (c) 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**

**Explanation:**

- **Statement 1 is correct:** India is the 3rd largest fish producing and 2nd largest aquaculture nation in the world after China. The Blue Revolution in India demonstrated importance of Fisheries and Aquaculture sector. The sector is considered as a sunrise sector and is poised to play a significant role in the Indian economy in near future.
- **Statement 2 is incorrect:** The state with the Largest Fish Production is Andhra Pradesh (29.47%) followed by West Bengal, Gujarat (6.06%), Odisha (5.78%), and Tamil Nadu (5.34%).

**Q97. Consider the following pairs:**

Volcanoes in news	Country
1. Klyuchevskaya	Russia
2. Mount Vesuvius	Italy
3. Mount Semeru	Indonesia

**How many of the pairs given above is/are correct?**

- (a) Only One
- (b) Only two
- (c) All three
- (d) None

**Ans: (c)**

**Explanation:**

- **Pair 1 is correct:** Klyuchevskaya is a stratovolcano, the highest mountain of Siberia, Russia.
- **Pair 2 is correct:** Mount Vesuvius is a somma-stratovolcano located on the Gulf of Naples in Campania, Italy.
- **Pair 3 is correct:** It is the highest mountain on the island of Java, Indonesia. The name "Semeru" is derived from Meru, the central world mountain in Hinduism, or Sumeru, the abode of gods.

**Q98. Consider the following States:**

1. Arunachal Pradesh
2. Himachal Pradesh
3. Mizoram

**In which of the above States do 'Tropical Wet Evergreen Forests' occur?**

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

**Ans: (c)**

**Explanation:**

- Tropical wet evergreen forests are typically found in locations with more than 200 cm of rainfall and temperatures ranging from 15 to 30 degrees Celsius.
- Tropical Wet Evergreen Forests are mostly located near the equator. They have scant undergrowth with clearings in between.

- They don't have a lot of litter. These are dense, multi-layered woodlands.
- It is found on the western slopes of the Western Ghats, the islands of Lakshadweep, Andaman and Nicobar, Northeast India, and some parts of the Tamil Nadu coast.
- The states where these forests are predominantly identified are assam, Arunachal Pradesh, Mizoram, Maharashtra.
- **So, option (c) is correct.**

**Q99. Which one of the following regions of India has a combination of mangrove forest, evergreen forest and deciduous forest?**

- (a) North Coastal Andhra Pradesh
- (b) South-West Bengal
- (c) Southern Saurashtra
- (d) Andaman and Nicobar Islands

**Ans: (d)**

**Explanation:**

- The region in India that has a combination of mangrove forest, evergreen forest and deciduous forest is the Andaman and Nicobar Islands.
- Mangroves are a group of trees and shrubs that live in the coastal intertidal zone. Mangrove forest in Loxahatchee, Florida. There are about 80 different species of mangrove trees. All of these trees grow in areas with low-oxygen soil, where slow-moving waters allow fine sediments to accumulate.
- Tropical evergreen forests are found in warm and humid areas with an annual precipitation of over 200 cm and mean annual temperature above 22°C. Tropical evergreen forests are well stratified, with layers closer to the ground and are covered with shrubs and creepers, with short structured trees followed by tall variety of trees.
- Tropical deciduous are the most widespread forests in India. They are also called the monsoon forests. They spread over regions which receive rainfall between 70-200 cm
- **So, option (d) is correct.**

**Q100. In India, in which one of the following types of forests is teak dominant tree species?**

- (a) Tropical moist deciduous forest
- (b) Tropical rain forest
- (c) Tropical thorn scrub forest
- (d) Temperate forest with grasslands

**Ans: (a)**

**Explanation:**

- Tropical Deciduous Forests are the most widespread forests in India. They are also called the monsoon forests. They spread over regions which receive rainfall between 70-200 cm. On the basis of the availability of water, these forests are further divided into moist and dry deciduous.
- The Moist deciduous forests are more pronounced in the regions which record rainfall between 100-200 cm.
- These forests are found in the northeastern states along the foothills of Himalayas, eastern slopes of the Western Ghats and Odisha. Teak, sal, shisham, hurra, mahua, amla, semul, kusum, and sandalwood etc. are the main species of these forests.
- **So, option (a) is correct.**
-



