

Q1. Match List - I with List - II and select the correct answer from the codes given below the lists:

List - I (Tropical Cyclone)	List - II (Location)
A. Cyclones	1. USA
B. Hurricanes	2. East Asia
C. Typhoons	3. Australia
D. Willy-willies	4. India

- (a) A-4, B-2, C-1, D-3
(b) A-4, B-1, C-2, D-3
(c) A-3, B-1, C-2, D-4
(d) A-3, B-2, C-1, D-4

Q2. Which of the following is correct about the peninsular plateau?

- (a) Narrow deep valleys
(b) Newest landmass
(c) Composed of old crystalline rocks
(d) Both (a) and (c)

Q3. How many square kilometers is the forest area of Kostandra region in Andhra state?

- (a) 14,996
(b) 19,590
(c) 15,996
(d) 18,890

Q4. What are the most common trees in mangrove forests?

- (a) Vuppuponna, Boddu Ponna Oorada,
(b) Mangrove, White Mangrove, Gundu Mangrove
(c) Both a and b
(d) Both a and b are not.

Q5. What are the tidal forests of Andhra Pradesh called?

- (a) Coringa forests
- (b) Moist deciduous forests
- (c) Mazes
- (d) Coastal forests

Q6. Which are the largest forests in Andhra Pradesh in terms of area?

- (a) Korangi forests
- (b) Black forests
- (c) swamps
- (d) None of the above

Q7. The Narmada river flows to the west, while most other large peninsular rivers flow to the east. Why?

1. It occupies a linear rift valley.
2. It flows between the Vindhya and the Satpuras.
3. The land slopes to the west from Central India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 3
- (d) None

Q8. Recently Vadavan port has been announced to be developed as the 13th port of the country. It is located in-

- (a) Maharashtra
- (b) Gujrat
- (c) Tamil Nadu
- (d) Odisha

Q9. Consider the following pairs

1. Wetlands Confluence of rivers
2. Harike Wetlands : Confluence of Beas and Satluj/Sutlej
3. Keoladeo Ghana : Confluence of National Park Banas and Chambal

4. Kolleru Lake : Confluence of Musi and Krishna

Which of the pairs given above is/are correct?

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

Q10. Which of the following layer of atmosphere absorbs the UV radiation?

- (a) Stratosphere
- (b) Mesosphere
- (c) Exosphere
- (d) Thermosphere

Q11. Consider the following gases with reference to El-Niño.

1. It brings warm sea surface temperatures and affects global weather.
2. La Niña is its opposite phase, with cooler sea surface temperatures.
3. El Niño's effects span the globe, influencing monsoons and hurricanes.

How many of the above statement is/are correct?

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

Q12. The term "Albedo" refers to.

- (a) Surface reflectivity
- (b) Earth's Tilt
- (c) Evaporation rate
- (d) Atmospheric pressure

Q13. Consider the following statements with reference to Soil in India.

1. Narmada and Godavari are the west flowing rivers.
2. Ghaghra is the left bank tributary of river Ganga.

How many of the above statement is/are correct?

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

Q14. Consider the following with reference to tributaries of Brahmaputra.

1. Subansiri
2. Dhansiri
3. Manas
4. Teesta

How many of the above is/are right bank tributary?

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

Q15. Consider the following pairs with reference to lakes.

Lakes	Location
1. Chilika Lake	West Bengal
2. Pulikat Lake	Tamil Nadu
3. Sambhar Lake	Maharashtra
4. Tsomgo Lake	Ladakh

How many of the above pair/s is/are correctly matched?

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

Q16. Recently Saffir-Simpson scale is seen in news to measure the cyclone intensity is used by which of the following Country:

- (a) France
- (b) Bangladesh
- (c) Brazil

(d) United States of America

Q17. Consider the following statements with reference to Samudrayaan mission.

1. It is India's first manned ocean mission.
2. It aims to visit to the depth of 6000 meter.
3. It is part of deep ocean mission.

Which of the above statement is/are correct?

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

Q18. How Ocean acidification affects the Ocean?

- (a) Increased growth of corals
- (b) Harms Shell-forming Organisms
- (c) Increase fish population
- (d) Decrease Biological Oxygen Demand

Q19. Which pair does not match correctly?

- (a) Kharif season - From June to September
- (b) Zaid Season - April to June
- (c) Rabi season - From October to March
- (d) None

Q20. Match

Hydropower Project - State

- A. Idukki Dam - 1. Kerala
- B. Koyna Dam - 2. Maharashtra
- C. SriSailam Dam - 3. Andhra Pradesh
- D. Tehri Dam - 4. Uttarakhand

- | | A | B | C | D |
|-----|---|---|---|---|
| (a) | 3 | 2 | 1 | 4 |
| (b) | 1 | 2 | 3 | 4 |

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

Q21. Which of the following states is major in marine fisheries?

- (a) Andhra Pradesh
(b) Tamil Nadu
(c) Gujarat
(d) Kerala

Q22. When was the National Highways Authority of India (NHAI) established?

- (a) 1975
(b) 1985
(c) 1995
(d) 2005

Q23. Choose the correct counterpart.

- (a) Karakoram Pass - Himachal Pradesh
(b) Zoji la Pass - Arunachal Pradesh
(c) Shipki La Pass - Jammu and Kashmir
(d) Nathula Pass - Sikkim

Q24. How many km is the total length of the Indian coastline including the islands?

- (a) 15,200
(b) 4,156
(c) 6,100
(d) 7,516.6

Q25. Consider the following pairs with reference to the traditional water harvesting system in India: System Region

1. Paar system Western Rajasthan
2. Bandhis Bundelkhand region
3. Pat system Madhya Pradesh
4. Johad Andhra Pradesh

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

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

Q26. With reference to a particular river in India, consider the following statements:

1. The river forms a delta that hosts the Coringa mangrove forests.
2. Pravara and Indravati are its important tributaries.
3. It forms the boundary between the states of Telangana and Maharashtra.

Which of the following rivers has been described in the statements given above?

- (a) Tapi
- (b) Kaveri
- (c) Mahanadi
- (d) Godavari

Q27. Which of the following statements is correct regarding tsunamis?

- (a) A tsunami is a long tidal wave caused by earthquakes or volcanic eruptions under the ocean.
- (b) Earthquakes of less than 5 magnitude are very unlikely to trigger a tsunami.
- (c) When a tsunami wave enters shallow water its wavelength and height increases.
- (d) Tsunami causes devastation near the coast of the sea as the speed of the sonic waves generated at the epicentre is directly proportional to the distance between the coast and epicentre.

Q28. Consider the following statements regarding Ocean currents?

They are primarily caused due to push of winds.

The direction of currents does not depend on the rotation of the earth.

They cause the water of the ocean to circulate around the world.

Which of the statements given above is/are correct?

- 1 and 2
- 2 and 3
- 1 and 3

Q29. Consider the following statements

1. There are no east flowing rivers in Kerala.
2. There are no west-flowing rivers in Madhya Pradesh

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

Q30.A state in India has the following characteristics

1. Its northern part is arid and semi-arid.
2. Its central part produces cotton.
3. Cultivation of cash crops is predominant over food crops

Which of the statements given above is/are correct?

- (a) Andhra Pradesh
- (b) Gujarat
- (c) Karnataka
- (d) Tamil Nadu

Answers

S1.Ans(b)

Sol.

Tropical Cyclone	Location
Cyclones	India
Hurricanes	USA
Typhoons	East Asia
Willy-willies	Australia

S2.Ans(c)

Sol. The Peninsular plateau is a tableland composed of the old crystalline, igneous and metamorphic rocks. It was formed due to the breaking and drifting of the

Gondwana land and thus, making it a part of the oldest landmass. The plateau has broad and shallow valleys and rounded hills.

Q3.ANS.(b)

Costandra region of Andhra State has a forest area of 19,590 square kilometers (30.67%) and Rayalaseema has a forest area of 14,996 square kilometers (23.53%).

Q4.ANS.(c)

In the Andhra Pradesh forests, coastal forests are known as floodplain forests and mangrove forests. They are especially spread in river mouths. These forests are most spread in the Krishna delta areas. The main trees in mangrove forests are Upponna, Boddu Ponna, Urada, Mada, Tellamada, Gundu Mad(a)

Q5.ANS.(a)

Tidal forests in Andhra Pradesh are known as Koringa forests. They are 15 km away from Kakinada in East Godavari district.

Q6.ANS.(b)

The largest forests in Andhra Pradesh in terms of area are the Nallamala forests. In Andhra Pradesh, Kadapa and Chittoor are the districts where females are the most. In Andhra Pradesh, Krishna and Srikakulam are the districts where females are least. Visakhapatnam and Kadapa are the districts with the highest forest density in the state. Krishna and Anantapur are the districts with less forest density in the state.

S7.Ans.(a)

Sol. It occupies a linear rift valley

S8.Ans.(a)

Sol. Villagers in Maharashtra's Dahanu are objecting to the Vadhavan port project. They believe the project will be detrimental to the environment and their livelihoods

The Vadhavan port will be India's 13th major port.

- It has been planned as an 'All Weather, All Cargo' satellite port to enhance capabilities in handling deep-draft ships and larger vessels.
- The port project is part of the Centre's Sagarmala initiative that aims to make Indian ports major contributors to the country's GDP.
- The Port will have a dedicated road and rail service so as not to interfere with the local traffic, thereby avoiding any clutter within the local transportation.
- It will be developed on a "landlord model".

S9.Ans.(a)

Sol.

Harike Wetlands is at the Confluence of Beas and Satluj/Sutlej. The Keoladeo National Park formerly known as the Bharatpur Bird Sanctuary in Bharatpur is at the confluence of two rivers, the Gambhir and Banganga. Kolleru Lake is one of the largest freshwater lakes in India located in the state of Andhra Pradesh. Kolleru is located between Krishna and Godavari delta

S10. Ans (a)

Sol.

UV radiation is primarily absorbed in the atmosphere's Stratosphere due to the presence of ozone (O₃) molecules. This ozone layer acts as a protective shield, absorbing and scattering harmful UV radiation from the sun, safeguarding life on Earth.

Hence option (a) is correct

S11. Ans (c)

Sol.

Statement 1 is correct

El Niño involves warm sea surface temperatures, impacting global weather. Its opposite, La Niña, features cooler sea temperatures. El Niño's influence extends globally, affecting monsoons and hurricanes.

Statement 2 is correct

La Niña represents the opposite phase of El Niño, marked by cooler sea surface temperatures in the Pacific Ocean, with distinct impacts on global climate patterns and weather phenomena.

Statement 3 is correct

El Niño's reach is global, exerting influence on phenomena like monsoons and hurricanes, underscoring its far-reaching impact on climate patterns worldwide.

S12. Ans (a)

Sol.

"Albedo" denotes the reflective properties of a surface, indicating how much solar radiation it reflects, impacting its temperature and energy absorption attributes.

Hence option (a) is correct

S13. Ans (b)

Sol.

Statement 1 is incorrect

Narmada and Tapi are some of the west flowing rivers which drain into the Arabian Sea.

Statement 2 is correct

Ghaghra, Gandak, Kosi are some of the left bank tributaries of river Ganga.

S14. Ans (c)

Sol.

The Brahmaputra River's right bank tributaries encompass the Subansiri River, Teesta River and Manas River. Its left bank is fed by the Lohit River, Dibang River, Dhansiri and Siang River.

Hence only three options are correct

S15. Ans (a)

Sol.

- Chilika Lake is located in the Orissa and is the largest fresh water lake
- Pulikat Lake is located in the state of Andhra Pradesh and Tamil Nadu and it is the second largest salt water lake of India.
- Sambhar Lake is a salt water Lake Located in Rajasthan.
- Tsomgo Lake is located in the Sikkim, it is also known as Changu Lake.

Hence only one pair is correctly matched.

S16. Ans (d)

Sol.

Saffir-Simpson Scale is used by the America to measure the intensity of the Cyclone which is also called Hurricane in America, according to this scale Category 1 is the lowest whereas Category 5 is the Highest.

Hence option (d) is correct

S17. Ans (d)

Sol.

Statement 1 is correct

Samudrayaan Mission is the first manned mission to explore the ocean with men with the help of vehicle called Matsya 6000

Statement 2 is correct

This mission aims to explore the ocean surface along the Indian Coastline till the depth of 6000 meter.

Statement 3 is correct

It is the part of Deep Ocean mission which was launched by the Ministry of Earth Sciences in the 2021 to support the Blue Economy.

S18. Ans (b)

Sol.

Ocean acidification is a process caused by the absorption of excess carbon dioxide (CO₂) by the world's oceans. This phenomenon has several negative effects on marine ecosystems. One significant impact is the harm it inflicts on shell-forming organisms. As carbon dioxide dissolves in seawater, it forms carbonic acid, which leads to a decrease in the ocean's pH level, making it more acidic. This increased acidity impairs the ability of marine organisms like corals, mollusks, and other shell-forming creatures to form and maintain their calcium carbonate shells and skeletons. These structures provide protection and support to these organisms, and their deterioration can disrupt marine food chains, impacting various species that depend on them. The weakening of shell-forming organisms has far-reaching consequences, potentially affecting marine biodiversity, fisheries, and overall ecosystem health.

Hence option (b) is correct

S19. Ans. (d)

Sol.

Kharif Season - From June to September

Zaid Season - April to June

Rabi season - From October to March

S20. Ans. (b)

Sol.

Idukki dam- Kerala

Koyna Dam - Maharashtra

SriSailam Dam - Andhra Pradesh

Tehri Dam - Uttarakhand

S21. Years. (d)

Sol. Kerala is the leading producer of marine fish.

S22. Answer (a)

Sol. India's first livestock census was taken in 1919 with very few dairy cattle.

S23. Ans. (d)

Sol. Karakoram Pass (Jammu-Kashmir), Zojila pass, Shipki La pass (Himachal Pradesh) Bomdila Pass (Arunachal Pradesh) Nathula and Jhelepla pass (Sikkim) are major passes of Himalayas.

S24. Ans. (d)

Sol. The total length of the Indian coastline including the archipelagos is 7,516.6 km. The Palk Strait is a narrow stretch of sea separating India and Sri Lanka.

S25. Ans. (c)

Sol.

Option (c) is correct: Rainwater harvesting is a simple strategy by which rainfall is gathered and stored for future usage. The process involves collection and storage of rainwater with help of artificially designed systems, that runs off natural or man-made catchment areas e.g. rooftop, compounds, rocky surface, hill slopes or artificially repaired impervious/semi-pervious land surface. The collected rainwater from surfaces on which rain falls may be filtered, stored and utilized in different ways or directly used for recharge purposes.

Paar system: Paar is a common water harvesting practice in the western Rajasthan region. It is a common place where the rainwater flows from the agar (catchment) and in the process percolates into the sandy soil. The structure was constructed through traditional masonry technology. Rainwater harvested through PAAR technique is known as Patali paani.

Bandhis: Bandhis/ Talabs are reservoirs. They may be natural, such as the ponds (pokhariyan) at Tikamgarh in the Bundelkhand region. They can be human-made, such the lakes in Udaipur. A reservoir area of less than five bighas is called a talai ; a medium sized lake is called a bandhi or talab; bigger lakes are called sagar or samand. The pokhariyan serve irrigation and drinking purposes. When the water in these reservoirs dries up just a few days after the monsoon, the pond beds are cultivated with rice.

Pat system: Bhitada village, Jhabua district of Madhya Pradesh developed the unique pat system. This system was devised according to the peculiarities of the terrain to divert water from swift-flowing hill streams into irrigation channels called pats.

Johad: Johads are small earthen check dams that capture and conserve rainwater, improving percolation and groundwater recharge. Starting 1984, the last sixteen years have seen the revival of some 3000 johads spread across more than 650 villages in Alwar district, Rajasthan. This has resulted in a general rise of the groundwater level by almost 6 metres and a 33 percent increase in the forest cover in the area. Five rivers that used to go dry immediately following the monsoon have now become perennial, such as the River Arvari, has come alive.

S26. Ans. (d)

Sol.

- The Godavari River is the largest river in peninsular India and is known as the 'Dakshina Ganga'. The Godavari Basin is the second largest basin after the Ganges basin and accounts for nearly 9.50 % of the total geographical area of the country.
- The river rises in the Sahyadris, at an altitude of 1,067 m above mean sea level near Trimbakeshwar in the Nashik district of Maharashtra and flows across the Deccan Plateau from the Western to the Eastern Ghats. The main river forms the interstate boundary between the States of Telangana and Maharashtra; and Telangana and Chattisgarh.
- The Pravara and the Manjra are the main tributaries joining on the right bank of the river and the Purna, the Pranhita, the Indravati and the Sabari are the main tributaries joining on the left bank.
- Known for its unique biological diversity, the Godavari Delta, located on the Eastern Coast of the Indian peninsula, is an intrinsic component of India's coastal and marine heritage. The complex mesh of roots and the thick canopy of lush green branches spanning over acres and acres of inter-tidal zones are a sight to behold. The East Godavari River Estuarine Ecosystem (EGREE) encompassing Godavari mangroves is the second largest mangrove area, after the famous Sunderbans in West Bengal.
- Thus, the description given in the statements matches the river Godavari. Hence, option (d) is the correct answer.

S27.Ans.(a)

Sol.

What is the difference between a tsunami and a tidal wave?

- Although both are sea waves, a tsunami and a tidal wave are two different and unrelated phenomena. A tidal wave is a shallow water wave caused by the gravitational interactions between the Sun, Moon, and Earth. A tsunami is an ocean wave triggered by large earthquakes that occur near or under the ocean, volcanic eruptions,
- Earthquakes of magnitudes below 6.5 are very unlikely to trigger a tsunami. Hence option (b) is the correct answer.
- Earthquakes of magnitudes between 6.5 and 7.5 do not usually produce destructive tsunamis.
- Magnitudes between 7.6 and 7.8: Earthquakes of this size might produce destructive tsunamis, especially near the epicenter.

- Once a tsunami forms, its speed depends on the depth of the ocean. In the deep ocean, a tsunami can move as fast as a jet plane, over 500 mph, and its wavelength, the distance from crest to crest, maybe hundreds of miles. A tsunami only becomes hazardous when it approaches land. As a tsunami enters shallow water near coastal shorelines, it slows to 20 to 30 mph. The wavelength decreases, the height increases, and the currents intensify.
- Tsunami causes devastation near the coast of the sea as the speed of the sonic waves generated at the epicentre is directly proportional to the depth of the sea.

S28.Ans.(c)

Sol.

An ocean current is a continuous, directed movement of seawater generated by a number of

forces acting upon the water, including wind, the Coriolis effect, breaking waves, cabbeling,

and temperature and salinity differences. Depth contours, shoreline configurations, and

interactions with other currents influence a current's direction and strength. Ocean currents

are primarily horizontal water movements.

Ocean currents flow for great distances, and together, create the global conveyor belt which

plays a dominant role in determining the climate of many of the Earth's regions. More specifically, ocean currents influence the temperature of the regions through which they travel.

For example, warm currents traveling along more temperate coasts increase the temperature of

the area by warming the sea breezes that blow over them. Perhaps the most striking example is

the Gulf Stream, which makes northwest Europe much more temperate than any other region at the same latitude. Another example is Lima, Peru, where the climate is cooler, being sub-

tropical, than the tropical latitudes in which the area is located, due to the effect of the Humboldt Current.

S29.Ans.(d)

Sol.

Three east-flowing rivers found in Kerala are Kavari, Tapti, Narmada, and Mahi rivers flow westward and also flows through Madhya Pradesh. East flowing rivers of Kerala are Kabani, Bhavani, and Pambar. The west-flowing rivers in M.P. are Narmada, Tapti, Mahi

S30.Ans.(b)

Sol.

Gujarat is situated in northern part is arid and semi-arid. Its central part produces cotton. Cultivation of cash crops is predominant over food crops.

