DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

ESSCORE

PTS2023/TPT-02/102022/02

TARGET PT - 2023

GEOGRAPHY - 2



Test No.

Time Allowed: One Hour

Maximum Marks: 100

${\rm I}~{\rm N}~{\rm S}~{\rm T}~{\rm R}~{\rm U}~{\rm C}~{\rm T}~{\rm I}~{\rm O}~{\rm N}~{\rm S}$

- 1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES *NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
- 2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number carefully without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.
- 3. You have to enter your Roll Number on the test booklet in the Box provided alongside. *DO NOT* write anything else on the Test Booklet.
- 4. This Test Booklet contains **50** items (questions). Each item is printed in English. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
- 5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
- 6. All items carry equal marks.
- 7. Before you proceed to mark in the Answer Sheet in response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
- 8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
- 9. Sheets for rough work are appended in the Test Booklet at the end.

10. Penalty for wrong answers:

THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.

- (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
- (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.
- (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no** penalty for that question.

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- Consider the following statements about the 1. thermodynamics of the Oceans:
 - 1. Heat energy stored per unit mass of the marine water is much higher than that of fresh water at the same temperature.
 - 2. High specific heat, horizontal and vertical mixing are responsible for the lowest diurnal temperature range in the marine ecosystem.

Which of the above statements is/are correct?

- 1 only (a)
- (b) 2 only
- Both 1 and 2 (c)
- Neither 1 nor 2 (d)
- Consider the following statements regarding 2. the distribution of the salinity of the oceans:
 - 1. As the polar ice melts, along with water it releases the salts stored in it which is responsible for the high salinity variations in polar region.
 - 2. Salty ocean waters of the Red sea and Persian Gulf region are due to high evaporation rate in this region and low influx of freshwater.
 - 3. North Sea, despite its location in higher latitudes, records higher salinity due to North Atlantic Drift.

Which of the above statements is/are correct?

- 1 and 3 only (a)
- (b) 2 only
- 2 and 3 only (c)
- 1, 2, and 3 (d)
- Which of the following statements about the 3. Oceanic currents is/are correct?
 - 1. There is a clear reversal of Indian Ocean currents in the winter and summer season
 - 2. Ocean currents follow the main direction of the planetary wind system.
 - 3. They are influenced by the earth's rotation and density difference.

Select the correct answer from the codes given below:

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

- Which of the factors influence the size and 4. force of a sea wave?
 - 1. Velocity of the wind
 - 2. The length of time the wind blows
 - 3. Distance that the wind has travelled across the open sea

Select the correct answer from the code given below.

- 1 and 2 only (a)
- 1 and 3 only (b)
- 2 and 3 only (c)
- (d) 1, 2 and 3
- 5. Consider the following factors:
 - 1. Earth's rotation
 - 2. Moon's gravitational pull
 - 3. Local winds
 - 4. Shape of the shoreline

Which of the above given factors affects the formation of tides?

- 1, 2 and 3 (a)
- (b) 1 and 2 only
- 2 and 4 only (c)
- 1, 2, 3 and 4 (d)
- Consider the following statements: 6.
 - A. Grand Banks of Newfoundland and Japan's coasts provides the ideal breeding ground for nutrients and oxygen that feed the fish.
 - **R.** The meeting of cold ocean current and warm ocean current is a favourable condition for fisheries to thrive.

Select the correct answer using the code given below:

- (a) Both A and R are correct and R provides a suitable explanation for the A.
- Both A and R are correct but R does not (b) provide a suitable explanation for A.
- A is correct but R is incorrect. (c)
- Both A and R are incorrect. (d)
- 7. Consider the following statements:
 - 1. The global wind system is responsible for driving surface currents which brings heat from the tropics to the Polar Regions.

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2. The difference in water density results in formation of thermohaline circulation.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **8.** Which of the following ocean currents contribute in aggravating the Great Pacific Garbage Patch or the Pacific trash vortex?
 - 1. California Current
 - 2. North Equatorial Current
 - 3. Kuroshio Current
 - 4. Oyashio Current
 - 5. Antarctic Circumpolar Current

Select the correct answer using the code given below:

- (a) 1, 2, 3, and 5 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 3 only
- (d) 1, 2 and 4 only
- **9.** Which of the following statements is/are correct?
 - 1. Dampening of the Coriolis Effect of Earth's rotation is the main cause for the formation of Ekman spiral.
 - 2. Because the deeper layers of water move more slowly than the shallower layers, they tend to "twist around" and flow opposite to the surface current.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither1 nor 2
- **10.** Which of the following are the North Atlantic cold currents?
 - 1. Cayenne Current
 - 2. Irminger Current
 - 3. Florida Current
 - 4. Canaries Current

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Select the correct answer using the code given below:

- (a) 1, 2 and 4 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 and 4 only
- **11.** Which of the following statements about the marginal sea features around the world is *not* correct?
 - (a) Davis Strait of connects the Baffin Bay with the Labrador Sea in the Atlantic Ocean.
 - (b) Strait of Gibraltar connects North Atlantic Ocean with the Mediterranean Sea.
 - (c) 'Swatch of No Ground' is a unique feature of the Bay of Bengal.
 - (d) Bab-El-Mandeb connects Persian Gulf with Arabian Sea.
- **12.** Given below are two statements, one is labelled as Assertion (A) and other is as Reason (R).
 - A: Deepest points in the ocean floor lies between the ocean floor and continental plates.
 - **R:** Ocean trenches represent the boundary of the convergent tectonic plates, also form the line of high tectonic activities and volcanic activities.

Select the correct answer using the codes given below:

- (a) Both A and R are correct and R provides a suitable explanation for the A.
- (b) Both A and R are correct but R does not provide a suitable explanation for A.
- (c) A is correct but R is incorrect.
- (d) Both A and R are incorrect.
- **13.** Consider the following statements.
 - 1. Seamounts are the submerged volcanoes with blunt tops.
 - 2. Guyots are the eroded version of the seamounts.
 - 3. Submarine canyons are found in the deep sea.

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Which of the following statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- **14.** Which of the following statements is/are *incorrect*?
 - 1. Pelagic deposit covers about 75% of the total seafloor.
 - 2. The chief inorganic constituents of pelagic deposit are silicon and aluminium dioxide.
 - 3. Most parts of the Indian Ocean have siliceous ooze as deposits.

Select the correct answer from the code given below:

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3
- **15.** Consider the following statements about the movement of ocean water:
 - 1. Movement of water caused by winds and atmospheric pressure changes are called tides.
 - 2. The periodical rise and fall of the sea level mainly due to the attraction of the sun and the moon is called surge.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **16.** Consider the following statements about Oceanic waves:
 - 1. Waves are movement of energy rather than movement of water particles.
 - 2. The water particles travel in small circles on the passage of waves.
 - 3. The waves travel when wind pushes the water body in its course and gravity pulls the crests of the waves downward.

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

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- **17.** Consider the following statements about terrigenous deposits:
 - 1. Terrigenous deposits are found in Rift valley.
 - 2. Terrigenous deposits are derived from the wear and tear of land, volcanic and organic products.
 - 3. On the basis of size of particles, the terrigenous deposits may be categorised into three classes— mud, sand and gravel.

Which of the statements given above are correct?

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

18. Consider the following statements:

- 1. Nektons and Benthos are the examples of abiotic marine resources.
- 2. Biotic resources of the seas include fishes, crustaceans, molluscs, corals, reptiles and mammals etc.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **19.** Consider the following statements about coral reefs:
 - 1. Coral Reefs are the rainforests of the sea.
 - 2. Corals thrive in temperate waters.
 - 3. Fresh water is most suitable for growth of corals.



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

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- **20.** Consider the following statements about different types of coral reefs:
 - 1. Barrier reefs grow near the coastline around islands and continents and are separated from the shore by narrow, shallow lagoons.
 - 2. Fringing reefs are parallel to the coastline that is separated by deeper, wider lagoons.
 - 3. Atolls are rings of coral that create protected lagoons and are usually located in the middle of the sea.

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

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 3 only
- (d) 1, 2 and 3
- **21.** Match the following traditional water conservation method with the states they are practiced in:

	Traditional water		State
	conservation		
1.	Zabo	A.	Tamil Nadu

- 2. Eri B. Kerala
- 3. Surangam C. Nagaland
- 4. Ahar pynes D. Bihar

Select the correct answer using the codes given below:

- (a) 1-D, 2-A, 3-B, 4-C
- (b) 1-C, 2-A, 3-B, 4-D
- (c) 1-C, 2-B, 3-A, 4-D
- (d) 1-D, 2-B, 3-A, 4-C
- **22.** Consider the following statements about the underground water resources:
 - 1. Groundwater is formed when water percolates the surface of the earth and passes through the voids of rocks to meet the water table.

2. Infiltration galleries and springs are examples of underground water sources.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **23.** Consider the following statements about surface water resources:
 - 1. Water flow in a river depends on size of its catchment area or river basin and rainfall within its catchment area.
 - 2. Small creeks, Lagoons and water holes are examples of perennial surface water.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **24.** Arrange the terrigenous deposits mentioned in increasing order of their sizes:
 - 1. Mud
 - 2. Silt
 - 3. Sand

Select the correct answer using the codes given below:

- (a) 1-2-3
- (b) 3-2-1
- (c) 2-1-3
- (d) 1-3-2
- **25.** Consider the following statements regarding sea water elements:
 - 1. The seawater contains about 10 major elements and at least about 49 minor & trace elements.
 - 2. Salinity changes due to winds resulting from differing in atmospheric pressure.

Which of the statement/s given is/are correct?

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



- **26.** Which of the following phenomenon makes up the part of Hydrological Cycle?
 - 1. Evaporation
 - 2. Infiltration
 - 3. Runoff and Subsurface flow

Select the correct answer using the following code:

- (a) 1 and 3 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3
- **27.** Consider the following statement regarding Continental Slope:
 - 1. It links the continental shelf and the ocean basins.
 - 2. It starts where the bottom of the continental shelf abruptly drops off into a steep slope.
 - 3. Canyons and trenches are seen in this region.

Select the correct answer using the following code:

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

28. Consider the following statements:

- 1. The Barren Island volcano is an active volcano in the Indian Territory.
- 2. Barren Island lies East of Great Nicobar.
- 3. Barren Island is a long volcanic arc connecting Sumatra and Myanmar

Which of the following statements above is/ are correct?

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

29. Consider the following statements:

- 1. A land mass obstructs the direction of flow of ocean current:
- 2. The south equatorial current in the Atlantic Ocean is obstructed by the North American continent.

Which of the given statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **30.** Consider the following statements regarding Aquifers:
 - 1. An aquifer is a body of rock and/or sediment that holds groundwater.
 - 2. Unconfined aquifers have a layer of impenetrable rock or clay above them, while confined aquifers lie below a permeable layer of soil.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **31.** Which of the following statement is *incorrect* regarding Mid-oceanic Ridges?
 - (a) It is a continuous range of underwater volcanoes.
 - (b) It occurs along convergent plate boundaries.
 - (c) The geologic process of seafloor spreading occurs at mid-ocean ridges.
 - (d) Fast-spreading ridges are hotter as compared to slow-spreading ridges.
- **32.** Consider the following pairs:
 - 1. Aden Ridge It is located between the northern coast of California and southern Oregon.
 - 2. Galapagos Ridge It is located in the Gulf of Aden between Somalia and the Arabian Peninsula.
 - 3. Gorda Ridge It is located in the East Pacific Ocean between Cocos Plate to the north and Nazca Plate to the south.

Which of the pair(s) given above is/are matched *incorrectly*?

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



33. Consider the following:

Oceanic Ridges - Location

- 1. Cocos Ridge Pacific Ocean
- 2. Gakkel Ridge Arctic Ocean
- 3. Carlsberg Ridge Indian Ocean
- 4. Chile Ridge Atlantic Ocean

Which of the pair given above are matched correctly?

- (a) 2, 3 and 4 only
- (b) 1, 2 and 3 only
- (c) 1, 3 and 4 only
- (d) 1, 2 and 4 only
- **34.** Consider the following statements regarding Fracture Zones in the ocean:
 - 1. Fracture zones exist as bathymetric features extending many hundreds of kilometers from the mid-ocean ridge.
 - 2. The crust on one side of a fracture zone will be older and colder, more contracted, and deeper than the crust on the other side.
 - 3. The fracture zones are not plate boundaries.

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

- (a) 1 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) 1 and 2 only
- **35.** Consider the following statements:
 - 1. Hot spot volcanoes occur far from plate boundaries because the hot spot is caused by mantle plumes that exist below the tectonic plates.
 - 2. A mantle plume is an area under the rocky outer layer of Earth, called the crust, where magma is hotter than surrounding magma.

Which of the given statements is/are correct?

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

- **36.** Consider the following statements regarding surface water:
 - 1. Surface water is any body of water above ground, including streams, rivers, lakes, wetlands, reservoirs, and creeks.
 - 2. The oceans are also considered surface water.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **37.** Where is Don Juan Pond, the most saline water body on the earth, located?
 - (a) Mediterranean Sea
 - (b) Antarctica Ocean
 - (c) Baltic Sea
 - (d) Dead Sea
- **38.** What among the following is/are the reasons behind the generation of Spring Tides?
 - 1. The earth is between sun and moon.
 - 2. The sun and moon are in one side of earth.
 - 3. The moon reaches in the first and third quarter of its cycle.

Select the correct answer from the codes given below:

- (a) 1 only
- (b) 2 only
- (c) 1 and 2 only
- (d) 1, 2 and 3
- **39.** Which of the following conditions is/are necessary for the origin of Tsunami due to Earthquake?
 - 1. The occurrence of earthquake must be beneath the ocean.
 - 2. The earthquake must occur at a shallow depth.
 - 3. The earthquake must cause horizontal movement of the seafloor.

Select the correct answer using the codes given below:

- (a) 1 and 3 only
- (b) 2 and 3 only



- (c) 1 and 2 only
- (d) 2 only
- **40.** Which of the following statements is/are effect(s) of Ocean Currents?
 - 1. The warm oceanic currents are responsible for rainfall in coastal areas whereas the cold oceanic currents are responsible for desertification in coastal regions.
 - 2. The ocean currents are responsible for transporting warm water and precipitation from the equator toward the poles and cold water from the poles back to the tropics.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **41.** Consider the following statements regarding Ocean Currents:
 - 1. The meeting of cold ocean current and warm ocean current is an unfavourable condition for fisheries to thrive.
 - 2. Newfoundland coast provides the ideal breeding ground for nutrients that feed the fish.
 - 3. The ocean currents affect the availability of nutrients for plants to grow.

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

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- **42.** Consider the following statements regarding Warm and Cold Ocean Currents:
 - 1. The warm ocean current moves from a high latitude region to a low latitude region.
 - 2. Due to Coriolis force, the warm ocean currents tend to move in the right direction in northern hemisphere and in the left direction in the southern hemisphere.

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

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

43. Consider the following ocean currents:

	Ocean Current	-	Description
1.	Gulf Stream	-	It is a cold current originating in the Gulf of Mexico along the east coast of United States.
2.	Labrador Current	-	It is a cold current flowing from the Arctic Ocean south along the east coast of Canada.
3.	Kuroshio Current	-	It is a warm current flowing off the coast of Japan in the Pacific Ocean.
4.	Oyashio Current	_	It is a cold current that flows south and circulates

counterclockwise in the western North Pacific Ocean.

Which of the pairs given above are matched correctly?

- (a) 2, 3 and 4 only
- (b) 1 and 3 only
- (c) 1, 2 and 3 only
- (d) 2 and 4 only
- **44.** Consider the following oceanic features and their characteristics:
 - 1. Continental Shelf: Active volcanoes and strong earthquake
 - 2. Continental Slope: Canyons and trenches
 - 3. Deep-Sea Plain: flattest and smoothest regions

Which of the above pairs is/are correctly matched?

- (a) 1 and 2 only
- (b) 3 only



- (c) 2 and 3 only
- (d) 1, 2 and 3
- **45.** With reference to the Spring Tides, consider the following statements:
 - 1. During these tides, the sun and the moon are at right angles.
 - 2. They occur during the full moon period and the new moon period.

Which of the following statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **46.** Consider the following statements regarding the variation in the water temperature and salinity in the Oceans:
 - 1. Horizontal distribution of the salinity of the Ocean waters exhibits direct relationship with the surface temperature of the water as high temperature causes more evaporation and vice-versa.
 - 2. Salinity of the Ocean increases rapidly in the thermocline zone because decrease in temperature leads to increases in solubility of salts in the water.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither1 nor 2
- **47.** Consider the following pairs:
 - 1. Labrador Current: North Atlantic Ocean
 - 2. Benguela Current: Equatorial Region.
 - 3. The West Wind Drift: West to East in a clockwise direction around both the Poles.

Which of the above pairs is/are correctly matched?

- (a) 1 and 2 only
- (b) 1 and 3 only

- (c) 1 only
- (d) 1, 2 and 3
- **48.** Which of the following statements is/are correct?
 - 1. As we move deeper (100 m or 330 feet) the Oceanic Gyre forms a spiral pattern called as Ekman spiral.
 - 2. Dampening of the Coriolis Effect of the Earth's rotation is the main cause for the formation of Ekman spiral.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither1 nor 2
- **49.** Consider the following statements regarding tides:
 - 1. Tides affect the commercial fishing since fishes concentrate during ebb or flood tidal current.
 - 2. In India Sundarbans and Hoogly river is one of the potential areas for harnessing tidal energy.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **50.** Consider the following statements regarding ocean currents:
 - 1. Through the global conveyer belt, ocean currents contribute in regulating earth's climate.
 - 2. Ocean currents also contribute in aggravating great pacific garbage patch.

Which of the above statements is/are correct?

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



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