

6. With reference to heating and cooling of earth, which of the following is true?

- (a) Lower layer of atmosphere is heated by the process of conduction.
- (b) Atmosphere is heated by shortwave radiation reflected from the surface of earth.
- (c) Transfer of heat through horizontal movement of air is called convection.
- (d) Transfer of heat through vertical movement of air is called advection.

7. Which one is the universally accepted theory of Earth's origin.

- (a) Binary star (b) Big Bang Theory (c) Nebular Hypothesis (d) Tidal

8. The earth's radius is about?

- (a) 5370 km (b) 6370 km (c) 8000 km (d) 9000 km

9. The ocean floor may be segmented into how many divisions based on the depth as well as the forms of relief?

- (a) Three (b) Four (c) Five (d) Seven.

Or

. Bounded by the Himalayas in the north, in the northwest, Purvanchal hills in the north-east and by the large expanse of the Indian ocean in the south, India forms a great geographic entity known as the Indian subcontinent.

- (a) Zaskar and PirPanjal ranges (b) Ladakh and Dhaoladhar ranges
- (c) Siwalik and Kirtar ranges (d) Hindukush and Sulaiman ranges

10. Consider and evaluate the following statements and choose the correct answer for them from the given options.

- 1. Himalayas acts as barrier for moisture laden monsoon winds.
- 2. They also protect Indian Subcontinent from cold winds from Central Asia and Siberia.

Which of the following statements is/are incorrect?

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

11. Churu (Rajasthan) is the example of which of the following place?

- (a) Coldest place
- (b) Hottest place
- (c) Place of very Shanty rainfall
- (d) Place receives large amount rainfall

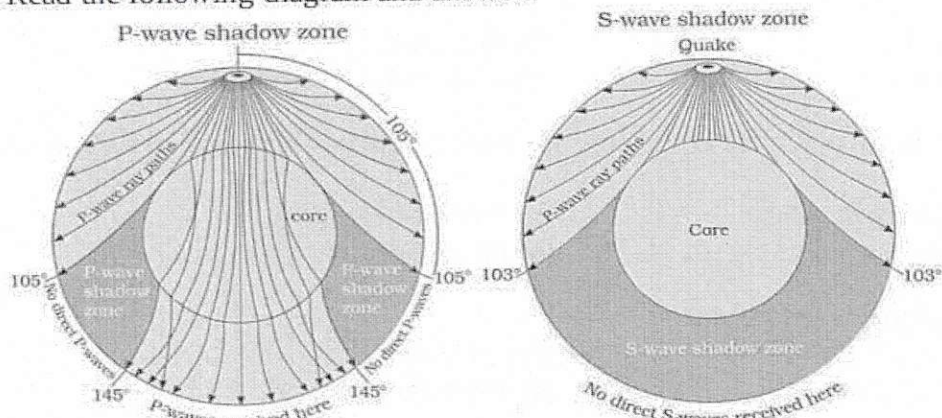
12. Assertion (A): The exogenic geomorphic processes vary from region to region.

Reason (R): There are different climatic regions owing to thermal gradients.

- a) Both (A) and (R) are true and (R) explains (A).
- b) Both (A) and (R) are true and (R) does not explains (A).
- c) (A) is true and (R) is false.
- d) (A) is false and (R) is true.

Study the picture and answer the following question:

Read the following diagram and answer:



13. What is the characteristic of the shadow zone for S-waves?

- (a) It does not receive any seismic waves.
- (b) It falls within 40% of the earth's surface.
- (c) It extends beyond 1450 from the epicenter.
- (d) It is smaller in extent compared to the P-wave shadow zone

14. Make correct pairs from the following two columns and mark the correct ones.

1. The small rocky particles between the orbits of Mars and Jupiter

A. A very large cloud of hydrogen gas found

2. Nebula

B. Gas Giant Planet

3. Mercury

C. Asteroids

4. Saturn

D. Inner Planets

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

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

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

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

15. . _____ Instrument is used to record the earthquake waves.

(a) Anemometer

(b) Rain Gauge

(c) Seismograph

(d) Barometer

16. Most explosive volcanoes are called:

(a) Shield Volcanoes

(b) Composite Volcanoes

(c) Flood basalt province

(d) Caldera

17. GIS stands for _____ .

(a) Geography Integrated System

(b) Geography Included Study

(c) Geographic Information System

(d) Geographic Inclusive Study

SECTION-B

18. Section b consists of two source based question of three marks each

Read the following passage and answer the questions that follows: [1+1+1=3]

All natural earthquakes take place in the lithosphere. It is sufficient to note here that the lithosphere refers to the portion of depth up to 200 km from the surface of the earth. An instrument called 'seismograph' records the waves reaching the surface. A curve of earthquake waves recorded on the seismograph. Note that the curve shows three distinct sections each representing different types of wave patterns. Earthquake waves are basically of two types — body waves and surface waves. Body waves are generated due to the release of energy at the focus and move in all directions travelling through the body of the earth. Hence, the name body waves. The body waves interact with the surface rocks and generate new set of waves called surface waves. These waves move along the surface. The velocity of waves changes as they travel through materials with different densities. The denser the material, the higher is the velocity. Their direction also changes as they reflect or refract when coming across materials with different densities. There are two types of body waves. They are called P and S-waves. P-waves move faster and are the first to arrive at the surface. These are also called 'primary waves'. The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials. S-waves arrive at the surface with some time lag. These are called secondary waves. An important fact about S waves is that they can travel only through solid materials. This characteristic of the S-waves is quite important. It has helped scientists to understand the structure of the interior of the earth. Reflection causes waves to rebound whereas refraction makes waves move in different directions. The variations in the direction of waves are inferred with the help of their record on seismograph. The surface waves are the last to report on seismograph. These waves are more destructive. They cause displacement of rocks, and hence, the collapse of structures occurs.

(i) Which one of the following earthquake waves is more destructive?

- (a) P-waves
 - (b) Surface waves
 - (c) S-waves
 - (d) None of the above
- (ii) Which of the following sequences correctly lists the different arrivals from first to last?
- (a) P waves ... S waves Surface waves
 - (b) Surface waves ... P waves S waves
 - (c) P waves ... Surface waves ... S waves
 - (d) S waves ... P waves Surface waves
- (iii) Body waves consist of the
- (a) P waves only
 - (b) S waves only
 - (c) P and S waves
 - (d) Surface waves

Read the following passage and answer the questions that follows: [1+1+1=3]

To the northwest of the Aravali hills lies the Great Indian desert. It is a land of undulating topography dotted with longitudinal dunes and barchans. This region receives low rainfall below 150 mm per year; hence, it has arid climate with low vegetation cover. It is because of these characteristic features that this is also known as Marusthali. It is believed that during the Mesozoic era, this region was under the sea. This can be corroborated by the evidence available at wood fossils park at Aakal and marine deposits around Brahmsar, near Jaisalmer (The approximate age of the wood-fossils is estimated to be 180 million years). Though the underlying rock structure of the desert is an extension of the peninsular plateau, yet, due to extreme arid conditions, its surface features have been carved by physical weathering and wind actions. Some of the well pronounced desert land features present here are mushroom rocks, shifting dunes and oasis (mostly in its southern part). Most of the rivers in this region are ephemeral. The Luni river flowing in the southern part of the desert is of some significance. Low precipitation and high evaporation makes it a water deficit region.

- (a) Why does the desert region of India known as Marusthali?
- (b) What are the evidences that support the fact that during Mesozoic era the Indian desert was under the sea?
- (c) What are the important land features of Indian desert?

SECTION-C

Section C consist of four questions of 3 marks each (80 to 100 words) (3×4=12)

- 20. Write the difference between Bhabar and Terai.
- 21. How geography is concerned with other social sciences?

OR

- Differentiate between Primary waves and Secondary waves.
- 22. What are the implications or importance of India having a long coastline?
- 23. What are the socio-economic advantages of inter-linking of rivers in India?

SECTION – D

Section D consists of five question of 5 marks each (120 to 150 words) (5×5=25)

- 24. Explain The Big Bang Theory with the help of diagram and also write three stages in the development of the universe.

25 Write different types of drainage patterns and distinguish eastward and westward flowing peninsular rivers of India.

26. Describe the interior structure of the earth with diagram.

27. Evaluate the major features of river the Ganga.

Or

There are several evidence in support of the continental drift theory. Explain them.

28. Make a comparative study between the Himalayan and peninsular rivers.

Or

Explain the physiographic features of the Peninsular Plateau in India and their significance.

SECTION- E

29. Locate the given points on political map of world. (Any Five)

- a) Indian Ocean
- b) Volcanic hotspots
- c) Mid- Atlantic ridges
- d) Red Sea
- e) Eastern Madagascar
- f) Thar Desert
- g) Locate Ring of Fire?
- h) Africa

30. Locate the given points on political map of India. (Any Five)

- a) Pulicat Lake
- b) Coromandal coast
- c) Western Ghats
- d) Karakoram Range
- e) Chota Nagpur Plateau
- f) River Narmada
- g) Andaman & Nicobar
- h) Malabar coast.