



Fact Sheet Prep Series Part - 18

ANSWER KEY WITH EXPLANATION

GEOGRAPHY & ENV.

(PART - IV)

1 Ans. a

Explan - The most common type of Sedimentary rock is the Conglomerate, which is caused by the accumulation of small pebbles and cobbles. High temperatures inside the crust of the Earth cause rocks to melt, and this substance is known as magma. The texture of Igneous rocks can be referred to as Phaneritic, Aphaneritic, Glassy (or vitreous), Pyroclastic or Pegmatitic.

2. Ans. c

Explan - Westerlies are particularly strong, especially in the southern hemisphere, where there is less land in the middle latitudes to cause the flow pattern to amplify or become more north-south oriented. Westerlies are generally strongest in the winter hemisphere and at times when the pressure is lower over pressures are higher over the poles.

3. Ans. d

Extra Information - Earthquakes are caused mostly by rupture of geological faults, but also by other events such as volcanic activity, landslides, mine blasts, and nuclear tests.

4. Ans. c

Explan - **Evergreen and semi-evergreen forests:** These forests are common on the rainy slopes of the Western Ghats and the hills of Assam. The trees do not shed leaves at any particular time of the trees and hence the 'evergreen' nomenclature. The trees reach an height of over 50 meters. The wood of these forests is hard. Close to the evergreen forests lie the semi-evergreen forests. They are common in regions with rainfall between 200 and 300 cm. The Evergreen forests are typical to areas of tropical rain.

5. Ans. d

Explan - Tropical cyclones rotate counter clockwise in the Northern Hemisphere. They are classified as follows:
Tropical Depression: A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less.
Tropical Storm: A tropical cyclone with maximum sustained winds of 39 to 73 mph (34 to 63 knots).
Hurricane: A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher. In the western North Pacific, hurricanes are called typhoons; similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.
Major Hurricane: A tropical cyclone with maximum sustained winds of 111 mph (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale.

6. Ans. b

Extra Information - It lies above the troposphere and is separated from it by the tropopause. The stratosphere lacks the air turbulence that is so prevalent in the troposphere. Consequently, the stratosphere is almost completely free of clouds or other forms of weather. The stratosphere provides some advantages for long-distant flight because it is above stormy weather and has strong, steady, horizontal winds.

7. Ans. a

8. Ans. d

Explan - The Himalayan Rivers rise at high elevations and are fed by the eternal snow of the Himalayan glaciers. The Deccan Rivers rise at much lower heights in the Western Ghats and other mountain ranges and are rainfed. The Himalayan Rivers flow through young topography, and as they emanate from great heights, their erosive power is more. They frequently change course and are continuously shaping the valleys through which they flow. The peninsular rivers flow through



comparatively more stable land and channels through which they flow have already reached base levels.

9. Ans. a

Extra Information - Chemical weathering transforms the original material into a substance with a different composition and different physical characteristics. The new substance is typically much softer and more susceptible to agents of erosion than the original material. The rate of chemical weathering is greatly accelerated by the presence of warm temperatures and moisture.

10. Ans. b

Extra Information - Northern and eastern aspects of slopes are preferred as they are less exposed to strong afternoon sun and the south-west monsoon winds. Well drained, rich friable loams containing good deal of humus and minerals like iron and calcium are ideal for coffee cultivation. The soil must be properly manured to retain and replenish fertility and to increase productivity. Coffee cultivation requires plenty of cheap and skilled labour for various operations including sowing, transplanting, and pruning, plucking, drying, grading and packing of coffee.

11. Ans. c

Explan - The scattered nature of population and agricultural fields also favours tank irrigation. Most of the tanks are natural and do not involve heavy cost for their construction. Even an individual farmer can have his own tank. Tanks are generally constructed on rocky bed and have longer life span. In many tanks, fishing is also carried on. This supplements both the food resources and income of the farmer.

12. Ans. d

Explan - Metamorphic rocks are formed when rocks change their original shape and form due to intense heat or pressure.

13. Ans. c

Explan - Pothole is the landform created by the fluvial process while Mushroom rock is the feature created by the action of wind.

14. Ans. b

Explan - Lake Victoria, with a surface area of 68,800 km² and an adjoining catchment of 184,000 km², is the world's second largest body of fresh water, and the largest in the developing world, second only to Lake Superior in size.

15. Ans. d

16. Ans. d

17. Ans. d

18. Ans. a

Related Information - Temperate grasslands are a division of a larger biome grouping of grasslands that includes tropical savannas. Both biome types are characterized by a dominance of grasses, yet temperate grasslands differ significantly from savannas. First unlike savannas that can have trees and shrubs scattered throughout, temperate grasslands have trees and shrubs absent. Temperate grasslands are also found in less tropical ecosystems and thus have a larger temperate fluctuation during the year. Temperatures in temperate grasslands can vary tremendously which has a large impact on growing seasons. Generally they also have less rainfall.

19. Ans. a

Explan - Some parts of the ocean have lots of rain. The freshwater added at the surface dilutes the seawater, reduces the salinity and so makes the seawater less dense. Seawater can also be less saline near land, where rivers add freshwater. The ocean around Antarctica has a low salinity of just below 34ppt, and around the Arctic it is down to 30ppt in places. Thawing icebergs add freshwater – icebergs that have broken off ice sheets formed over land do not contain salt, and the freezing of seawater into ice floes removes more salt.

20. Ans. b

Explan - The lesser Himalayas (The Himachal) generally consists of unfossiliferous sediments or metamorphosed crystalline. Important range include the Dhauladhar, Pirpanjal, Nag Tiba, Mahabharat and Mussoorie range.

21. Ans. a

22. Ans. b

Explan - Extrusive igneous rock tends to be glassy in texture because their formation occurs very rapidly. Examples of extrusive igneous rock include pumice and basalt. Pumice is an extrusive igneous rock used in many products such as toothpaste, cement, and cosmetic products. Basalt is an extrusive igneous rock used in constructing buildings and statues.

23. Ans. a

Related Information - PEDOCALS - These soils are usually found in dry, warm climates such as those of the western United States that get less than 60 centimetres of rain per year. They contain abundant calcium carbonate and many sulphate minerals. They are characteristically a light gray-brown color. Laterites occur in warm, tropical areas that get more than 120 centimetres of rain per year. They have a distinctive deep red color, and contain much aluminium oxide and iron oxide. Oxidized iron gives laterite its red color.

24. Ans. c

Explan - The two significant features of India's rainfall



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is that i. in the north India, rainfall decreases westwards and ii. in Peninsular India, except Tamil Nadu, it decreases eastward.

25. Ans. a

Related Information - The drainage of the Indian subcontinent has adjusted itself with the evolution of three main geomorphological entities, namely the Northern Mountains, the Northern Plains and the Peninsular Plateau. On the basis of their origin, the river systems of the subcontinent can be divided into two classes the Himalayan Rivers and the Peninsular Rivers. The Indus, Ganga and Brahmaputra river systems comprise the Himalayan group while the major rivers in the peninsular systems are the Narmada, Tapti, Mahanadi, Godavari, Krishna and Cauveri.

26. Ans. c

Explan - The slope of the Deccan Plateau is from west to east. The Satpura range makes Deccan Plateau's northern part. The Mahadev, Kaimur Hills and Maikal range make its eastern part. It extends into the north east which encompasses Meghalaya, Karbi-Anglong Plateau and North Cachar Hills. Garo, Khasi and Jaintia hills are the prominent ranges; starting from west to east.

27. Ans. a

Explan - The first kind of surface wave is called a Love wave, named after A.E.H. Love, a British mathematician who worked out the mathematical model for this kind of wave in 1911. It's the fastest surface wave and moves the ground from side-to-side.

28. Ans. c

Extra Information - There must be adequate food supply to nourish the abundant life of the coral reef. The most favourable condition for this purpose is the presence of continuously flowing ocean currents which provide to the stationary reef building organisms the much needed food supply. For example, extensive coral reefs are found on the east coasts of Australia, Central America, and Africa, which are washed by warm ocean currents flowing along them. On the contrary, corals are found only in scattered patches on the west coasts of these continents.

29. Ans. d

30. Ans. b

Extra Information - Laterite soils are said to ferruginous aluminous rock. They are formed by decomposition; because of they are found in black soil regions having heavy rainfall. The rocks are completely leached out having a high proportion of iron and aluminium as residue. High temperature and heavy rainfall transformed the

black soil into laterite. These soils are red in colour as it is mixed with iron oxides. These soils are also used as building materials in India. But agriculture can be practiced with the help of fertilizer.

31. Ans. c

32. Ans. b

Explan - Because the tides are influenced by both the Moon and the Sun, it's easy to see that when the Sun lines up with the Moon and the Earth, as during a New Moon or Full Moon (a configuration also called "syzygy"), the tidal effect is increased. These are known as spring tides. On the other hand, if the Sun and the Moon are 90 degrees apart in relation to an observer on Earth as during the First Quarter Moon or Third Quarter Moon (sometimes called half moons), then high tides are not as high as they normally would be. This phenomenon of lower high tides is called a neap tide. The height of the tides can also vary during the course of a month because the Moon is not always the same distance from the Earth. As the Moon's orbit brings it in closer proximity to our planet (closest distance within a moon cycle is called perigee), its gravitational forces can increase by almost 50%, and this stronger force leads to high tides. Likewise, when the Moon is farther away from the Earth (furthest distance is called apogee), the tides are not as spectacular.

33. Ans. d

34. Ans. a

Related Information - All soils contain mineral particles, organic matter, water and air. The combinations of these determine the soil's properties – its texture, structure, porosity, chemistry and colour.

35. Ans. d

Related Information - The surface air temperature at any location on Earth is the result of a small number of factors. These factors act in concert to create a particular heat budget for this location that varies over time. Some of these factors (like the input of solar radiation) positively influence the budget by providing some type of energy which is converted into heat, which then results in a corresponding increase in surface air temperature. Other factors act to reduce temperature by decreasing the input of heat energy or by taking away heat energy from the atmosphere.

36. Ans. a

Extra Information - The National Waterway No. 1 uses a 1,620-kilometre stretch of the Ganges River. It was declared a national waterway in the year 1986 and runs from Allahabad in Uttar Pradesh to Haldia in West Bengal.



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37. Ans. a

Explan - There are 5 master horizons in the soil profile. Not all soil profiles contain all 5 horizons; and so, soil profiles differ from one location to another. The 5 master horizons are represented by the letters: O, A, E, B, and C. B: The B horizon is a subsurface horizon that has accumulated from the layer(s) above. It is a site of deposition of certain minerals that have leached from the layer(s) above. C: The C horizon is a subsurface horizon. It is the least weathered horizon. Also known as the saprolite, it is unconsolidated, loose parent material.

38. Ans. a

Explan - Perhaps the most striking example is the Gulf Stream, which makes northwest Europe much more temperate than any other region at the same latitude. Deep ocean currents are driven by density and temperature gradients. Thermohaline circulation, also known as the ocean's conveyor belt, refers to the deep ocean density-driven ocean basin currents. These currents, which flow under the surface of the ocean and are thus hidden from immediate detection, are called submarine rivers.

39. Ans. c

40. Ans. b

Explan - The winds blow from west to east in jet streams but the flow often shifts to the north and south. Jet streams follow the boundaries between hot and cold air. Since these hot and cold air boundaries are most pronounced in winter, jet streams are the strongest for both the northern and southern hemisphere winters.

41. Ans. c

Explan - The Bhakra Nangal Project is joint venture of Punjab, Haryana and Rajasthan Governments. The two dams, one at Bhakra and another at Nangal, together is referred to as Bhakra-Nangal Project. The aims of these projects are to provide water for irrigation, to generate hydro-electricity, and to prevent from Sutlej-Beas Rivers.

42. Ans. b

Explan - Bora- Blows along the shores of the Adriatic Sea. Levanter- Blows in strait of Gibraltar between Spain & Morocco. Pampero- Blows in Pampas of S. America.

43. Ans. a

Explan - The Tapti River and Mahi River also flow through rift valleys, but between different ranges. The Cauvery River rises and descends from the Brahmanpjin Hills in Coorg district of Karnataka State. This river makes a delta at the Bay of Bengal. The total length of this river is 800 km. It passes through Karnataka and Tamil Nadu states. Its catchment area is about 88,000 sq km and exists in Kerala as well. Its right hand tributaries are Lakshmantirtha, Kabini, Suvarnmati and Bhawani, whereas left Side Rivers are Heranji, Hemavati, Shimsha, Ankavati, etc.

44. Ans. a

Explan - The Eastern Coast is smooth and unfit for making ports. So, very few ports are developed there. But the Western Coast is broken and indented and suitable for ports. For this, a large number of ports are there. The Eastern Coastal plain receives comparatively low rainfall. But the Western Coastal plain receives heavy rainfall.

45. Ans. c

Explan - Agulhas Current - Warm, Kuroshio (Japan) Current - Warm, Labrador Current - Cool, Oyashio (Kamchatka) Current - Cool.

46. Ans. d

47. Ans. b

Extra Information - Dark colored surfaces, like ocean and forests, reflect very little of the solar energy that gets to them. Light colored parts of the planet surface, like snow and ice, reflect almost all of the solar energy that gets to them. Very dark colors have an albedo close to zero (or close to 0%). Very light colors have an albedo close to one (or close to 100%).

48. Ans. d

49. Ans. b

50. Ans. d



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