

1. B
2. C
3. D
4. C
5. D
6. A
7. D
8. D
9. C
10. D
11. C
12. C
13. B
14. C
15. C
16. D
17. D
18. A
19. C
20. B
21. A

Thalghat connects Nasik to Mumbai and Bhorghat connects Pune to Mumbai

22. B

Granite is an intrusive igneous rock. Fossils are not found in igneous rocks

23. A
24. D

The short wave insolation received by the earth heats up its surface. The heated earth itself becomes a radiating body and it radiates energy in long wave form. This energy heats up the atmosphere from below. This process is known as terrestrial radiation. The long wave radiation is absorbed by the atmospheric gases particularly by CO₂ and other green house gases. Thus, the atmosphere is indirectly heated by the earth's radiation

25. B

S wave won't reach antartica as it cannot travel through the liquid core

26. B
27. A
28. D

El -Nino implies appearance of hot currents. December is a summer month in peru(southern hemisphere)

29. B

Ten degree channel separates Andaman from Nicobar. Duncan Passage separates South Andaman and little Andaman

30. D

Nappes are extreme form of folding and faulting and are unique features of Himalayas

31. A

32. A

33. A

Gypsum is used to treat salinity in the soil. Red laterite soils in Tamil Nadu, Andhra Pradesh and Kerala are more suitable for cashew nut

34. B

The human development index (HDI) ranks the countries based on their performance in the key areas of health, education and access to resources. The indicator chosen to assess health is the life expectancy at birth. A higher life expectancy means that people have a greater chance of living longer and healthier lives. The adult literacy rate and the gross enrolment ratio represent access to knowledge. The number of adults who are able to read and write and the number of children enrolled in schools show how easy or difficult it is to access knowledge in a particular country

35. A

36. D

37. C

38. A

On the Tibetan side altitude of snow line is about 900 m which is mainly due to greater desiccation of region and absence of moisture

39. D

40. A

Haryali project aims at enabling the rural population to conserve water for drinking, irrigation, fisheries and afforestation.

41. A

It is not suited for agricultural operations and only big trees with large roots thrive in the region. It has high porosity mainly due to gravel and pebble bed which does not support agriculture.

42. C

Anai Mudi peak is located in eastern Kerala.

43. B

Damodar is a tributary of river Hugli. Gas based power plant is Maithon Gas Turbine in Jharkhand with 82.5 MW capacity.

44. D

45. A

The most dominant factor of industrial location is the least cost. Manufacturing activity tends to locate at the most appropriate place where all the raw materials of production are available at lower cost. The smelting process required to produce aluminium from the alumina is continuous, the potline is usually kept in production for 24 hours a day year around. A smelter cannot be easily stopped and restarted. If production is interrupted by a power supply failure of more than four hours, the metal in the pots will solidify, often requiring an expensive rebuilding process.

46.C

47. D

South eastern Australia is the most densely populated region of Australia.

48. B

49.C

50. D

Trade winds are easterly winds.

51. D

52.C

The rain shadow region of Western Ghats lying in parts of Tamil Nadu, Karnataka and Andhra Pradesh is also a Dry zone agriculture region.

53.A

54. B

55. C

Rajasthan - 7130 km; Madhya Pradesh – 5064 km; Tamil Nadu - 4943 km; Maharashtra – 4257 km.

56.B

Mahanadi rises near Sihawa in Raipur district of Chhattisgarh. River Cauvery River rises from Brahmagiri hills of Coorg district of Karnataka.

57.C

Statement 2 is wrong because with the creation of transform faults along the conservative plate, severe earthquakes are caused

58.A

Indian paper industry has been de-licensed under the Industries Act, 1951 w.e.f. 1997. Foreign Direct Investment up to 100% is allowed on automatic route on all activities except those requiring industrial licenses where prior governmental approval is required

59. B

60.D

61. D

62. A

63. B

Challenger Rise - It is the southern part of mid-Atlantic Ridge south of equator. Northern part of Mid-Atlantic Ridge (north of equator) is known as Dolphin Rise. Galapagos Ridge is in Pacific Ocean west of Equador forming Galapagos Island. Chagos Ridge is south of Maldives and represented by Chagos Archipelago (group of Island). The largest island of this group of island is Diego Gracia, the US military base. Seychelles Ridge – forms Seychelles Island, in the eastern coast of Africa. Madagascar Ridge - forms Madagascar Island in the eastern coast of Africa.

64. D

65. D

Black cotton soil is black in colour due to presence of Fe and Mg. Deficient in nitrogen and phosphoric acid. Rich in potash and lime. Red soil is red in colour due to presence of Fe. Deficient in organic plant material, phosphorus, nitrogen and lime content. Potash and alumina content are satisfactory. It is acidic like laterite but less leached than laterite soil. Black soil is formed over Deccan lava, gneiss and granites. The Red soil developed on old crystalline rock under moderate to heavy rainfall. It is in different shades of Red and Yellow.

66. D

Factors affecting ocean salinity are:

(i) The salinity of water in the surface layer of oceans depends mainly on evaporation and precipitation.

(ii) Surface salinity is greatly influenced in coastal regions by the fresh water flow from rivers, and in Polar Regions, by the processes of freezing and thawing of ice.

(iii) Wind, also influences salinity of an area by transferring water to other areas.

(iv) The ocean currents contribute to the salinity variations by changing water density

67. C

Hindon and Ken both are tributaries of Yamuna

68. C

M.P shares border with Rajasthan, Gujarat, Maharashtra, Chhattisgarh and Uttar Pradesh. It does not have common border with Jharkhand

69. D

70. D

Equatorial region is generally devoid of seasons. Its climate is more or less similar throughout the year. France and Italy fall under Mediterranean regime thus having winter rainfall

71. A

72. D

Lohit originates in eastern Tibet. Manas originates in Bhutan. Subansiri originates in China. Dihing originates in the Patkai Mountain Range in Arunachal Pradesh

73. B

74. A

Summer temperatures are higher over the continents than over the oceans; the isotherms over the continents bend poleward. Winter temperatures are lower over the continents than over the oceans; the isotherms over the continents bend equatorward

75. C

76. B

It is often listed as the world's largest lake, although it is not a freshwater lake. It has a salinity of approximately 1.2%, about a third the salinity of most seawater

77. C

Within 5 degree north and south of equator, tropical cyclones don't originate due to excessively weak Coriolis force

78. C

79. B

Evergreen forests appear evergreen because the time of shedding leaves is not same for all the species found in such forests

80.D

81.B

82.B

83.B

84.B

At the equator, the Coriolis force is zero and the wind blows perpendicular to the isobar

85.B

Definitions of Nimbus and stratus clouds have been interchanged

86.A

87.D

88.A

The given data shows the climatic region of a city of southern hemisphere of China type climate where rainfall occurs all through the year

89.D

The shown region is Kaliningrad which is a detached territory of Russia

90.A

91.A

The Ox Bow lakes in this region are called Dhoro. The shifting sand dunes are locally called Dharians. The gullies formed by numerous streams are called chos

92.B

Visibility in mist(1-2 km) is higher than in the fog(<1 km)

93.C

The North Sea ,in spite of its location in higher latitudes,records higher salinity due to more saline water brought by the North Atlantic Drift.Baltic Sea records low salinity due to influx of river waters in large quantity

94.C

95.C

Pushpagiri peak is situated in Western Ghats in Karnataka. Abi Gamin is located in the central Himalayas in Chamoli district of Uttarkhand

96.B

97.A

98.A

Over the west coast of India, the dry spells are associated with days when winds blow parallel to the coast

99.D

100.D

101.D

102.B

103.C

104.C

105.D

106.A

The main island of Iceland is entirely south of the Arctic Circle, which passes through the small Icelandic island of Grimsey off the main island's northern coast. Among European Countries, Iceland is closest to Greenland (Denmark)

107.A

108.B

The equatorial region of low salinity ocean water lies below an atmospheric region called the "intertropical convergence zone". The intertropical convergence zone moves about the equator as the intense heat in the equatorial area produces a rising mass of moisture-laden air, thereby creating a region of low atmospheric pressure. The equatorial low pressure system pulls air and moisture from adjacent regions towards the equator. Consequently, air masses converge in this region from north and south of the equator, bringing moisture acquired by evaporation in the subtropical regions. The warm, humid air along the equator rises (because of its low density) and cools, allowing water vapor to condense, which results in rainfall, causing precipitation to exceed evaporation in equatorial regions.