Class- X

Revision Worksheet No.- 2 **Date: 4-02-21**

Geography Topic_Name- **CLIMATE (Give Reason)**

Give Geographical Reasons for the following:

1) **Question 1:** The latitudinal extent of India is responsible for the variation in the climatic conditions which prevail in the country.
Answer: The Northern plains lie to north of the Tropic of Cancer in the Temperate Zone. The winters are much colder. South India lies below the Tropic of Cancer, in the tropics and gets the direct rays of the sun. Hence it is hot through most of the year. The winters are not so cold.

2) **Question 2:** The Northern Plains of India have a Continental type of climate.
Answer: Northern plains have continental climate because it is away from the moderating influence of the sea.

3) **Question 3:** The northern plains of India do not freeze in winter.
Answer: The Himalayas prevent the bitterly cold winds of the north from entering into India and helps to keep the temperature of the northern plains at a moderate level.

4) **Question 4:** It is cooler on the mountain slopes than in the plains during summer.
Answer: Because the temperature decreases with altitude.

5) **Question 5:** Mention why does sub-continent have Tropical Monsoon climate.
Answer: Due to the pressure system, which is well developed over the land and Sea and due to the presence of a large land mass, and water body. Differential heating and cooling of land and water is the chief cause of the Tropical Monsoon type of climate.

6) **Question 6:** At a place like Bhopal one can see the midday sun exactly over head twice a year, while at vidisha, only a few kilometre north of it, one is not able to do so even once. Give the reason briefly.
Answer: Bhopal lies south of the Tropic of Cancer and Vidisha lies north of the Tropic of Cancer. Direct rays of the sun can be experienced only till Tropic of Cancer.

7) **Question 7:** Even in summer Shimla is cooler than Delhi.
Answer: Shimla is cooler than Delhi in summer as it is located at a higher altitude than that of Delhi. Thus due to Normal Lapse Rate Shimla enjoys a cooler climate than Delhi.

8) **Question 8:** Kochi has a lesser annual range of temperature than Agra.
Answer: Kochi has a coastal location while Agra has a continental location. Due to the influence of the moist winds from the sea it experiences a moderate climatic condition throughout the year. Whereas Agra has extreme temperature conditions resulting in high annual range of temperature.

9) **Question 9:** Explain why Nainital is cooler than Agra.
Answer: Nainital is a hill station located at a higher altitude. Since temperature decreases with altitude, it is cooler as compared to Agra which lies in the interior. It experiences continental type of climate.

10) **Question 10:** Patna receives heavier rain than Delhi.
Answer: Patna receives heavier rain than Delhi because the Bay of Bengal branch of South-West Monsoon goes up the Ganga plain as it proceeds up the Ganga valley, the amount of rain fall keeps decreasing East to West. Since Patna is located to the east of Delhi, it receives 102 cm of rain fall while Delhi gets 50 cm of rain fall annually.

11) **Question 11:** Mangalore is not cold even in the month of December.
Answer: Mangalore is located at the south of Tropic of Cancer along the Western Coast of India and enjoys the moderating influence of land and sea breezes throughout the year. The climate over there being equable or mari time type, the place does not experience any winter.

12) **Question 12:** India is known as the land of the endless growing Season. Explain.
Answer: India is known as the land of the endless growing Season because being a sub-tropical land it enjoys a growing Season throughout the year. Growing Season is that part of the year when the growth of vegetation is made possible by the favourable combination of temperature and rainfall.

13) **Question 13:** Explain the term ‘Burst of Monsoon’.
Answer: The sudden outbreak of the monsoon winds with an intensifying low pressure over the north-western part of the sub-continent, associated by thunder and lightning is called the ‘Burst of Monsoon’.

14) **Question 14:** Explain the term Retreating Monsoon.
Answer: South-West Monsoons begin to withdraw from the sub-continent during the first week of October. The sun begins to move towards equator. There is a decrease in temperature. Hot and sticky weather is found. Some tropical cyclones are developed which give heavy rainfall in coastal areas. Cool weather begins in North-West India, but the southern parts have an equable climate.

15) **Question 15:** The mango showers are beneficial local winds.
Answer: Mango showers are local winds which bring rain to Kerala in the month of May. It is good for the growth of mangoes.

16) **Question 16:** Mumbai is warmer than Kanpur in December.
Answer: Because it is close to equator as well as Sea.

17) **Question 17:** Chennai has a lower annual range of temperature than Lucknow.
Answer: Chennai is located at lower latitude and is closer to the equator as

compared to Lucknow. Besides Chennai is close to Sea so its temperature gets moderated whereas Lucknow is in the interior.

18) **Question 18:** Jaipur has a higher annual range of temperature than Mumbai.
Answer: Jaipur has a higher annual range of temperature because it is in the interior and it has a continental type of climate, Very hot in summer and Very cold in winter as it is far away from the oceanic effect, where as Mumbai is a coastal area. It is very close to ocean and due to the oceanic effect, it has a moderate climate which makes annual range of temperature very low.

19) **Question 19:** Why does Kanyakumari experience an equable climate?
Answer: Since, Kanyakumari is located at the top of the Indian sub-continent where the Bay of Bengal and the Arabian Sea meet, moderating the climate making it equable or maritime.

20) **Question 20:** The North East Monsoons bring almost no rain to most of India.
Answer: The North-East Monsoon is a dry wind blowing from the Asian landmass. It collects moisture from the Bay of Bengal. It brings less rain to east India, Chennai coast.

21) **Question 21:** Punjab gets rain in winters. Why?
Answer: Punjab gets rainfall in the winter months due to the winter monsoons. The source of winter rainfall for Punjab is also the cyclonic rain received from western disturbances entering the Indian sub-continent from the North-west.

22) **Question 22:** Kanyakumari is the first to receive the south-west monsoon stream and the last to see its retreat.
Answer: West coast region is the first to receive rain from the South-west monsoon. Hence, Kanyakumari is the first to receive the South-west monsoon stream. By the first week of October the South-west monsoon begins to withdraw from India since Kanyakumari is the last station to see the retreat of the South-west monsoon.

23) **Question 23:** Why does the Tamil Nadu coast get rainfall in October?
Answer: The south-west monsoon begins to withdraw from India by the first week of October. It leaves Jammu-Kashmir, the Northern Plains, then peninsular India, moving southwards and westwards. When it reaches the Chennai coast on its way backwards, it is checked by the Eastern Ghats and imparts rain to the Chennai coast. Chennai gets about 60 cm of rain from the retreating monsoon.

24) **Question 24:** Mangalore and Chennai lie approximately on the same latitude, yet Mangalore receives its rainfall from June to September, while Chennai receives rainfall in November and December. What is the reason of this difference?
Answer: Since Mangalore is situated on the west coast, it receives the South-west monsoon in June but Chennai is situated on the east coast so it receives rain from the retreating monsoon in November and December.

25) **Question 25:** When the Malabar coast is receiving heavy rainfall in July, the Tamil Nadu coast is comparatively dry.
Answer: When the malabar coast is receiving heavy rainfall in July the Tamil Nadu coast is dry because it lies in rain shadow region of Arabian sea branch and Bay of Bengal is parallel to the coast.

26) **Question 26:** Western coastal plains receive more rainfall than the Eastern coastal plains.
Answer: Western coastal plain receives more rainfall than eastern coastal plain because western coastal plain lies on the windward side of western Ghats and gets rainfall more than 200 cm but Eastern coastal plain lies on the leeward side of the Western Ghats and gets a little rainfall (50 to 100 cm).

27) **Question 27:** Central Maharashtra receives little rainfall.
Answer: Central Maharashtra receives little rainfall because it lies in the rain shadow region of western ghats when Arabian sea branch strikes it.

28) **Question 28:** Mention why does Mumbai receive more rainfall than Pune.
Answer: This is due to the difference in location. Mumbai is situated on the windward slope of the Western Ghats and so it receives more rainfall whereas Pune lies on the leeward side.

29) **Question 29:** Mumbai receives rainfall in the summer season while Chennai receives rainfall from October to December. Why?
Answer: Mumbai receives rainfall in summer season by south west monsoon, which enters into India from western coast, where Mumbai liqs and gives it heavy rainfall but Chennai receives rainfall in the month of October to December by the retreating monsoon and the N.E. monsoon which come from north east direction.

30) **Question 30:** Though Mangalore and Mysore are on the same latitude, Mangalore experiences more rainfall than Mysore. Give reasons.
Answer: Mangalore experiences more rainfall than Mysore because Mangalore lies on windward side of Western Ghats and Mysore lies on leeward side of the Western Ghats.

31) **Question 31:** Western Rajasthan receives no rain from the Arabian Sea branch of the South West Monsoon winds.
Answer: The Arabian sea branch of South-West Monsoon strikes the Saurashtra peninsula and passes over the western Rajasthan, parallel to the Aravalli range. It hardly causes any min in Western Rajasthan because it undergoes thermal heating on blowing over the hot sands and gets unsaturated. As the area lies on the lee ward side of the Aravalli range, no rain is caused.

32) **Question 32:** Thar Desert gets very little rain.
Answer: Thar desert remain practically dry because there is no transverse mountain range to check the Monsoon which directly advances towards the Kashmir Himalaya. Of course, there is a mountain range in Rajasthan namely the Aravalli Hills but they stretch South-west to North-east direction. Thus, the Aravalli Hills are roughly parallel to the Arabian Sea Monsoon.

33) **Question 33:** 'Thar desert region remains dry in the whole Season'.
Answer: Reasons for the dryness of Thar desert region: The entire region of Thar desert of the Indian Union remains practically dry because there is no transverse mountain range to check the monsoon which directly advances towards the Kashmir Himalayas. Of course, there is mountain range in Rajasthan, namely the Aravalli hills but they stretch South-west to north-east , direction. Thus, the Aravalli Hills are roughly parallel to the Arabian Sea Monsoon. This is why it does not prove an

effective barrier and the Thar region lies in the rain shadow area of these hills for the Bay of Bengal branch of the monsoons coming from the Sea.

34) **Question 34:** Rajasthan receives very little rainfall.
Answer: Because it is parallel to the Aravallis.

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