**India – Climate Vegetation and Wildlife**

**III. Answer the following questions in brief.**

**1. In Kerala, the local thunderstorms are called mango showers as they help in the ripening of mangoes.**

**2. South-west monsoons bring most of the rain in India.**

**3. Tamil Nadu receives more than half of its annual rainfall in winter.**

**4. The two areas where coniferous trees are found in India are the Himalayan areas, from Assam stretching westwards to Kashmir, and parts of the higher hills in the Western Ghats.**

**5. Lions, leopards, deer are examples of animals found in Grasslands.**

**IV.** **Answer the following questions in detail.**

**1. The factors responsible for affecting the climate of India are:**

**a. Latitude: India's latitudinal extent makes it a part of the Earth's tropical and sub-tropical heat zones. Also, places located on lower latitudes are warmer than places located on higher latitudes, which are warm in summers but cold in winters.**

**b. Altitude: The higher mountain ranges and plateau areas have lower temperatures and varying rainfall distribution, compared to more low-lying plains.**

**c. Direction of mountain ranges: This affects the direction of winds and rainfall. The east-west direction of the Himalayas acts as a barrier to cold winds from colder regions of Asia and also prevents the monsoon winds from leaving the country.**

**d. Distance from the sea: The climate of coastal places is defined by sea and land breezes, which originate due to differential heating and cooling of the sea and land. This is why coastal areas have equable climate, while places far away from the sea experience extreme climatic conditions.**

**e. Seasonal winds: These combine with the land characteristics, to create certain temperature and rainfall conditions that make India typically the land of the monsoons.**

**2. There are two main branches of the south-west monsoon winds over India. When the south-west monsoons approach the Indian coast, they divide into two branches-an Arabian Sea branch and a Bay of Bengal branch.**

**a. The Arabian Sea branch blows towards the west coast of India bringing heavy rain to coasts of peninsular India and parts of Gujarat.**

**b. The Bay of Bengal branch divides further into two branches:**

**i. one that moves towards eastern India, Myanmar and Bangladesh**

**ii. a second that travels up the Northern Plains and the Gangetic Valley towards the low pressure centered in the north-western part of India.**

**3. By the end of September, the Sun begins to move to the Equator and then to the Southern Hemisphere and a reversal of winds takes place. India witnesses the following during this season:**

**a. By October, the weather gets clearer and cooler.**

**b. Dry winds begin to blow from the land to the sea.**

**c. The temperature in the Northern Plains begins to decrease as the Sun's rays no longer fall directly on the Tropic of Cancer.**

**d. The south-west monsoon winds seem to withdraw in stages during this season. That is why this season is known as the retreating monsoon season.**

**4. In coastal regions where the sea water mixes with fresh water, mangrove forests that are salt tolerant, grow.**

**a. Mangrove or tidal forests are one of the most productive and biodiverse weth Earth. The vegetation here includes trees, shrubs, ferns and palms.**

**b. The largest mangrove forests in India and the world are the Sunderbans along coast in West Bengal.**

**c. Mangrove or tidal forests are also found in the deltas of the Godavari, Maha Krishna and Kaveri Rivers, and the Andaman and Nicobar Islands,**

**d. They are also found in some places on the slopes of the Western Ghats.**

**e. Freshwater swamp forests are found along the east Himalayan foothills.**

**5. Our wildlife reserves help in maintaining the ecological balance in the environment is vital that all species are protected.**

**Steps taken by the government to protect the wildlife are:**

**a. Intelligent policies, good sense, and growing public awareness will help in the protection and conservation of the wildlife species.**

**b. The first week of October is observed as Wildlife Week in India with an aim to create general awareness.**

**c. The Government of India has taken strict steps to protect wildlife like hunting killing of wild animals is illegal by law.**

**d. National parks and wildlife sanctuaries have been set up. India has about 104 national parks, over 550 wildlife sanctuaries and 50 tiger reserves. Project Tiger Project Rhino are special efforts to protect two of the endangered animals, tigers and rhinos, respectively.**