

New Beginning Teacher's Manual

ENVIRONMENTAL STUDIES

4

PREPARATORY
STAGE



MASTERMIND

Chapter 1 : Food Process in Plants

- A.** 1. (c) 2. (b) 3. (b) 4. (b) 5. (c) 6. (c)
- B.** 1. sunlight 2. living things 3. plants 4. carbon dioxide, oxygen
- C.** 1. F 2. T 3. F 4. T
- D.** 1. Leaves are green in colour due to presence of chlorophyll.
2. Leaves prepare food for the plant so it is called food factory of plant.
3. Chlorophyll absorbs energy from the sunlight so it is needed in photosynthesis.
4. Mushroom and croton have red colour leaves so they appear non-green plants.
- E.** 1. (d) 2. (c) 3. (e) 4. (b) 5. (a)
- F.** 1. Plants make their own food through a process called photosynthesis. They use sunlight, carbon dioxide from the air, and water from the soil to create food in their leaves. This happens in the presence of chlorophyll, a green pigment in leaves.
2. Leaf performs many functions. These are :
(i) It prepares food for the plant.
(ii) It helps the plant to breathe through stomata.
(iii) Some leaves store food prepared by the plant.
3. Plants give food and oxygen to animals and animals breathe out carbon dioxide and it is used by plants to make their food. This is how plants help in purifying air and they depend on each other.
4. Plants use carbon dioxide that animals breathe out. Dead animals put some minerals back into the soil. Animals eat up plants and prevent them from growing wild.

Chapter 2 : Adaptation in Animals

- A.** 1. (b) 2. (c) 3. (b) 4. (a)
- B.** 1. Amphibians 2. Birds, butterflies 3. herbivores 4. animals
- C.** 1. F 2. F 3. T 4. T
- D.** 1. (c) 2. (d) 3. (e) 4. (b) 5. (a)
- E.** 1. Monkey 2. crocodile 3. snake
- F.** 1. The process of changing to suit the surroundings is called adaptation. Animals can be grouped as terrestrial, aquatic, amphibians, aerial and arboreal.
2. They have strong arms and legs to climb, spine to prevent from slipping while climbing, fingers and thumbs to hold the branches firmly, etc.

3. Aquatic animals live in water and amphibians spend their lives partly in water and partly on land.
4. Some animals have skin which matches with their surroundings thus they can confuse their enemies and escape from them.
5. Herbivores have long and strong legs to walk long distances in search of food.
6. Animals that live either on or inside the bodies of other animals to obtain food are called parasites.

Example : mosquitoes, leeches, etc.

Chapter 3 : Food for Health

- A.** 1. (c) 2. (c) 3. (a) 4. (b)
- B.** 1. protein 2. food 3. roughage 4. Three-fourths
- C.** 1. F 2. F 3. T 4. T
- D.** 1. (c) 2. (d) 3. (e) 4. (b) 5. (a)
- E.** 1. The different types of food give our body all that it needs to perform different activities. These are called nutrients.
2. A balanced diet means eating different kinds of healthy foods that give our body what it needs.
3. We need food for energy to work and it keeps us fit and healthy.
4. Nutrients which help our body to fight from diseases are known as vitamins. And nutrients which help in the formation of bones, teeth and blood are known as minerals.
- F.** 1. Too much fat is harmful for our body, it causes many diseases.
2. Water helps our body to function properly, regulate body temperature and stay hydrated.
3. We need more milk than our elders because milk mainly provides calcium. It is good for our bones.

Chapter 4 : Clothes We Wear

- A.** 1. (b) 2. (b) 3. (a) 4. (a)
- B.** 1. threads 2. healthier 3. Synthetic 4. waterproof
- C.** 1. F 2. T 3. T 4. T
- D.** 1. (e) 2. (d) 3. (a) 4. (b) 5. (c)
- E.** 1. Woollen clothes do not allow the heat to flow out of the body.
2. Cotton clothes easily absorb sweat from the body.
3. They are made up of crude oil and chemicals so catch fire easily.
- F.** 1. We wear clothes to protect us from heat, rain, cold, insects, etc.
2. Fibres that obtain from plants and animals are called natural fibres.
For example : wool, cotton, silk, etc.

3. (i) Clothes should be washed properly.
 (ii) Coloured clothes should be dried in shade.
 (iii) Cotton clothes should be ironed before wearing.
 (iv) Tear in clothes should be mended on time.
4. Before storing clothes, put out in the sun to rid them of germs. Keep dried neem leaves or naphthalene balls between the folds of delicate clothes to keep insects and rat away.

Chapter 5 : Air, Water and Weather

- A.** 1. (a) 2. (b) 3. (a) 4. (a)
- B.** 1. Water 2. humidity 3. hot, cold, windy, dry, 4. water, water vapour
- C.** 1. T 2. T 3. T 4. F
- D.** 1. (d) 2. (e) 3. (b) 4. (c) 5. (a)
- E.** 1. Due to cold climate, the water vapour present in the atmosphere condenses to form dew drops.
 2. The safest method of purifying water is to boil.
- F.** 1. The different ways of purifying water are :
 (a) Chemical like chlorine and bleaching powder.
 (b) The addition of potassium permanganate crystal to water.
 (c) Boiling
 (d) Filtration
 (e) Sedimentation
2. Cool air from above the sea blows towards the land is called sea breeze. The cold air above the land blows towards the sea is called land breeze.
3. The Sun causes all these weather and season change. The part of the Earth that is closer to the Sun has warmer and longer days. So it is summer. The part of the Earth away from the sun has cooler and shorter days so it is winter.

Chapter 6 : Physical Features of Bharat

- A.** 1. (b) 2. (a) 3. (b) 4. (c)
- B.** 1. Seventh 2. peninsula 3. Himalayan 4. Indira
- C.** 1. Bharat is located in the central part of South-Asia.
 2. Bharat enjoys a suitable tropical monsoon and pleasant climate.
 3. The southern most part of Bharat is peninsula.

Chapter 7 : Soils and Crops of Bharat

- A.** 1. (b) 2. (a) 3. (c) 4. (a)
- B.** 1. mountain 2. black 3. cotton 4. Rajasthan
- C.** 1. T 2. F 3. F 4. T

- D.** 1. Soil is the uppermost layer of the Earth's crust. It is formed by the breaking up of the rocks by the action of rain, wind, heat etc.
2. **Alluvial Soil** – This soil is fertile and is found in the northern plains and coastal plains.
- Mountain Soil** : It is good for growing apples, apricot, rice, etc.
- Black Soil** : It has a quality of retaining moisture. It is clayey in nature.
- Red Soil** : This is not so fertile and found in hot and dry parts of the southern and eastern parts of the Indian peninsula.
3. Natural elements such as wind, rain, land slides and glaciers can cause soil erosion. Additionally social activities like overgrazing, deforestation and improper farming methods contribute to soil erosion.

Model Test Paper - 1

- A.** 1. (b) 2. (c) 3. (c) 4. (a) 5. (c) 6. (b) 7. (a) 8. (a) 9. (b) 10. (b)
- B.** 1. sunlight 2. herbivores 3. Three-fourths 4. healthier
5. Synthetic 6. Himalayan
- C.** 1. T 2. F 3. F 4. T 5. F
- D.** 1. (e) 2. (d) 3. (a) 4. (b) 5. (c)
- E.** 1. Plants give food and oxygen to animals and animals breathe out carbon dioxide and it is used by plants to make their food. This is how plants help in purifying air and they depend on each other.
2. Aquatic animals live in water and amphibians spend their lives partly in water and partly on land.
3. Nepal, Bhutan, China, Pakistan, Afghanistan, Bangladesh, Myanmar, Sri Lanka and Maldives.
4. We wear clothes to protect us from heat, rain, cold, insects, etc.
5. The process of change of water into water vapour due to heating is called evaporation. When water vapour cools down it changes into drops of water is called condensation.

Chapter 8 : Forests and Wildlife

- A.** 1. (a) 2. (c) 3. (a) 4. (a)
- B.** 1. One 2. trees 3. Himalayan 4. mangrove
- C.** 1. T 2. T 3. F 4. T
- D.** 1. (d) 2. (c) 3. (a) 4. (e) 5. (b)
- E.** 1. Forests are useful in many ways. They are main source of timber, fruits, vegetables, sandal, resins, rubbers, etc.
- Forests prevent soil erosion and give us oxygen. They help in bringing more rainfall and are home of many animals.
2. Evergreen forests, Deciduous forests, Coniferous forests, Tidal forests and Thorny forests.

3. Many wildlife sanctuaries and national parks have been set up in all our country to protect wildlife in forest areas.
4. We need to conserve forest because deforestation makes the soil barren and dry. It makes the climate hotter and also spoils the wildlife.

Chapter 9 : Mineral Wealth

- A.** 1. (a) 2. (b) 3. (a) 4. (c)
- B.** 1. miners 2. heat, energy 3. factories 4. bauxite
- C.** 1. T 2. F 3. T 4. F
- D.** 1. Two types of minerals are metallic and non-metallic.
2. Minerals are formed in rocks deep under the ground.
3. Petroleum is known as liquid gold due to its high commercial value.
4. Sun and wind are two alternative sources of energy.

Chapter 10 : Agriculture and Livestock

- A.** 1. (b) 2. (c) 3. (b) 4. (c)
- B.** 1. kharif 2. wet 3. southern, eastern 4. protein
- C.** 1. F 2. F 3. F 4. F
- D.** 1. Rabi crops are grown in winter season while kharif crops are grown in summer season.
2. Crops that people eat as food are called food crops while crops that sold for foreign exchange, provide raw material to industries are called cash crops.
- E.** 1. Animal waste like cow dung is used to produce biogas which is renewable and cheap source of energy.
2. The cultivation of fish for commercial purposes is called pisciculture.
3. Breeding and bringing up farm animals is called livestock rearing.
4. Farmers adopt dry farming where rainfall is less than 80 cm.
- F.** 1. The two main crops grown in Bharat are rice and wheat.
Rice : It is the most important food crop. It grows well in hot and humid areas where good amount of water is available. Rice is the staple food in the southern and eastern parts of Bharat.
Wheat : It is the second most important food crop. It grows best in cool and dry conditions. It is a winter crop.
2. Cash Crops : These crops are sold for foreign exchange, provide raw materials to industries. The main cash crops of Bharat are oilseeds, sugarcane, tea, coffee, spices, jute, rubber and tobacco.
3. The important food crops of India are rice, wheat, maize, millets and pulses.

Chapter 11 : Industries in Bharat

- A.** 1. (a) 2. (b) 3. (c) 4. (b)
- B.** 1. Iron and steel. 2. Textile industry 3. Bengaluru 4. Handicraft
- C.** 1. F 2. T 3. F
- D.** 1. Industry is the place where finished goods are produced from raw materials.
2. Industries are important in economic growth of a country.
3. Cottage industries are very small and set up at home. These industries require very few people, simple machines and materials found nearby place.
4. These are very big industries, thousands of workers are employed. These industries required big machines, large amount of money, and goods.

Chapter 12 : Life in the Northern Mountains

- A.** 1. (c) 2. (b) 3. (a) 4. (c)
- B.** 1. Jammu & Kashmir 2. states 3. Kanchenjunga 4. Nagas
- C.** 1. F 2. T 3. T 4. F
- D.** 1. Gangtok 2. Sonmarg, Gulmarg 3. Manipuri 4. Bamboo dance.
- E.** 1. The main food of Jammu & Kashmir is rice, maize, potatoes and other vegetables. They fond of Kahwa a kind of milkless tea. They wear loose woollen shirt called phiran with salwar.
2. The capital city of Arunachal Pradesh is Itanagar.
3. Sikkim is a small state in the eastern Himalayas. Gangtok is the capital city of Sikkim. The state is famous for orchards. They wear traditional colourful dresses. They are mostly farmers.
4. Seven sisters means seven states and there name are Arunachal Pradesh, Assam, Meghalaya, Tripura, Nagaland, Manipur and Mizoram.

Chapter 13 : The Earth and Its Neighbours

- A.** 1. (b) 2. (b) 3. (b) 4. (b)
- B.** 1. Rotation 2. Moon 3. Aryabhata 4. head
- C.** 1. F 2. T 3. T 4. T
- D.** 1. (c) 2. (d) 3. (e) 4. (b) 5. (a)
- E.** 1. The part which gets sunlight is cause day and which is not getting light cause night.
2. As the Earth continues to revolve the part that was tilted towards the sun slowly tilts away and has winter and the other part has summer.
3. Life is only possible on the Earth. It makes Earth different from the

other planets.

4. The Sun is a huge ball of fire but planets do not have their own light. Sun is the head but planets revolve around the Sun.

Chapter 14 : The Indian Government

- A.** 1. (b) 2. (b) 3. (b) 4. (c)
- B.** 1. 25 2. state legislative assemblies, President 3. The Prime Minister, Council of Ministers. 4. Governor
- C.** 1. (b) 2. (c) 3. (e) 4. (a) 5. (d)
- D.** 1. Rajya Sabha consisted of maximum 250 members of which 238 are elected by the members of the states and 12 members are to be elected by the President.
2. The elected members of the Lok Sabha, Rajya Sabha and State Legislative elect the President.
3. The Governor is the highest authority in the state. He is a link between the Central and the State Government. He appoints the leaders of the majority party as the Chief Minister of the state and members of state council of the ministers.
4. The party which has the maximum numbers of members in the Parliament becomes the winner and is called the majority party. Now, the President called the majority party to form the Central Government.

Model Test Paper-2

- A.** 1. (c) 2. (a) 3. (b) 4. (b) 5. (a) 6. (c) 7. (b) 8. (b) 9. (b) 10. (c)
- B.** 1. One 2. factories 3. protein 4. Handicrafts 5. Jupiter
- C.** 1. (c) 2. (a) 3. (e) 4. (b) 5. (d)
- D.** 1. T 2. T 3. F 4. T 5. T
- E.** 1. These forests are grow near to the equator. They get heavy rainfall and sunshine throughout the year. The trees in these forests do not shed their leaves. These forests remain green throughout the year.
2. Minerals are formed in rocks deep under the ground.
3. The important food crops of Bharat are rice, wheat, maize, millets and pulses.
4. Industries are important in economic growth of a country.
5. The Sun is a huge ball of fire but planets do not have their own light. Sun is the head but planets revolve around the Sun.
6. The elected members of the Lok Sabha, Rajya Sabha and State Legislative elect the President.