

# New Beginning Teacher's Manual

# ENVIRONMENTAL STUDIES

5

PREPARATORY  
STAGE



MASTERMIND

## Chapter 1 : Skeletal and Muscular System

- A.** 1. (a) 2. (c) 3. (a) 4. (a) 5. (a)
- B.** 1. framework 2. femur 3. spinal 4. brain.
- C.** 1. False 2. True 3. True 4. False 5. False
- D.** 1. Muscles 2. joints 3. heart 4. skull 5. fingers 6. wrist
- E.** 1. Skull 2. Teeth 3. Toes 4. Ankle 5. Shoulders
- F.** 1. Skeleton gives shape and strength to the body.  
 2. To keep the muscles in good shape we must maintain a good posture while we sit, stand or walk.  
 3. Blood carry oxygen from the lungs to different parts of the body.

## Chapter 2 : Health and Hygiene

- A.** 1. (c) 2.(c) 3.(none of these) 4. (a) 5. (c) 6 (a)
- B.** 1. Plants 2. important 3. soap, water 4. iron 5. exercise  
 6. Hygiene 7. mosquito
- C.** 1. (d) 2. (f) 3. (e) 4. (a) 5. (b) 6. (c)
- D.** 1. True 2. True 3. True 4. False 5. True 6. True
- E.** 1. Night Blindness 2. Beri-Beri 3. Scurvy 4. Rickets.
- G.** 1. It is better to stop something bad from happening than it is to deal with it after it has happened.  
 2. Gingivitis  
 3. Whence sneeze these germs are released into the air and infect classmates or friends.
- H.** 1. If we want to prevent diseases from surroundings we must keep our surrounding clean.  
 2. Vitamins and minerals are necessary for the body because vitamins protect our body from diseases and minerals strengthen bones and maintain a normal heartbeat and help in growth.  
 3. Dietary fibre known a roughage. It helps our body to get rid of waste easily and keep the muscles of intestine in good working order.  
 4. Houseflies set on food and transfer disease causing germs.  
 5. Communicable diseases can be avoided by keeping our surroundings clean.

6. Non-communicable diseases can be cured by taking balanced diet.
7. Vaccination is the use of special substance called vaccines to prevent specific disease.

### **Chapter 3 : Safety and First Aid**

- A.** 1. (a) 2. (a) 3. (a) 4. (b)
- B.** 1. fracture 2. fire extinguisher 3. firstaid 4. blanket 5. sand
- C.** 1. True 2. True 3. False 4. True 5. False 6. False.
- D.** 1. Fire extinguisher stop fire by removing heat, oxygen or fuel.  
2. Because water spreads the petrol making the fire worse.
- E.** 1. The immediate help given to an injured person before doctor arrives is called first aid. We can save injured person by giving first aid  
2. The signs that we see on the road that help in reducing the risk of accidents are called road sign.  
3. The three causes of fire are— (i) Wear nylon clothe when burning fire crackers (ii) In case of gas leak (iii) While electrical switches generates sparks when switching on or off.  
4. In case of an animal bite wash the wound with soap and water apply on antiseptic cream on the wound and cover it with a clean bandage.

### **Chapter 4 : Inventions for Being Healthier**

- A.** 1. (a) 2. (b) 3. (c) 4. (c) 5. (a)
- B.** 1. Penicillin 2. X-ray 3. Chloroform 4. Vaccination
- C.** 1. True 2. True 3. False 4. False 5. False
- D.** 1. An antibiotic is a substance that inhibits the growth of bacteria in the body.  
2. Thermometer was invented by Dr. Daniel Gabriel Fahrenheit. It is used to measure the temperature of diving being.  
3. It is the drug which brings total unconsciousness and it help the doctor to operate the patients as they do not feel while operate.

### **Chapter 5 : The Earth : As a Globe**

- A.** 1. (a) 2. (b) 3. (c) 4. (b)
- B.** 1. North pole, South pole 2. meridians 3. 180, 360 4. 24

C. 1. False 2. True 3. True 4. True 5. True

D. 1. (d) 2. (e) 3. (a) 4. (c) 5. (b)

E. 1. **Latitude**

(i) These are imaginary lines or circles.

(ii) On a globe these lines are from west to east.

(iii) Latitudes are parallel to each other.

**Longitude**

(i) These are imaginary semi-circular or lines.

(ii) On a globe these lines are from north to south.

(iii) Longitudes are not parallel to one another.

2. A uniform legally mandated standard time usually referred to as the local time.

3. Different longitudes receive the direct rays of the sunlight at different times. The eastern and western most ends have a time difference of about two hours. Most countries have a local time of their own. This is called their standard time.

4. The 180th meridian is known as the International Dateline.

## **Chapter 6 : The Maps**

A. 1. (a) 2. (b) 3. (a) 4. (b)

B. 1. model 2. hang 3. mountains 4. hills and plateaus 5. scale.

C. 1. True 2. True 3. False 4. False 5. True.

D. 1. (c) 2. (d) 3. (e) 4. (a) 5. (b)

E. 1. A map is an essential for studying the Earth because it provides detailed and specific information, and allows us to enlarge features of small areas for better understanding.

2. Which maps show the natural phenomena and human activities known as Topographical map. Which map show the villages and towns with the details of streets, plots, fields etc., known as Cadastral map.

3. The four main directions are north, south, east, west.

4. Political maps boundaries between different countries or state.

5. Signs and symbols are used to show many different

features on land such as temples, mosques, roads etc.

### **Chapter 7 : Means of Communication**

- A.** 1. (a) 2. (a) 3. (b) 4. (a) 5. (b)
- B.** 1. inland letters 2. e-mail 3. telephone 4. Mobile
- C.** 1. True 2. True 3. True 4. True 5. False
- D.** Individual Communication : 1. Fax 2. E-mail 3. Phones  
Mass Communication : 1. Television 2. Radio 3. Cinema
- E.** 1. They are two types of mean of communication :  
(a) Means of individual communication  
(b) Means of mass communication.
2. E-mail is a method of exchanging digital messages across the internet.
3. Four newspapers are- Dainik Jagran, Hindustan, Amar Ujala, Times of India four magazines are- Rupayan, Rangoli, India Today, Reader's digest.

### **Chapter 8 : Means of Transport**

- A.** 1. (a) 2. (b) 3. (b) 4. (b) 5. (b)
- B.** 1. Wright Brothers 2. Sher Shah Suri 3. James Watt 4. high 5. Vande Bharat Express
- C.** 1. False 2. True 3. True 4. False 5. True
- D.** 1. (c) 2. (d) 3. (e) 4. (a) 5. (b).
- E.** 1. Freeways 2. Bullet trains 3. The Canadian Pacific Railway 4. Cape town International Airport 5. Spice Jet.
- F.** 1. There are three types of means of transport in the world.  
2. Railway is the cheapest means of land transport.  
3. The four major seaports of Bharat are Mumbai, Jawaharlal Nehru port, Cochin, Chennai.  
4. James watt invented the steam engine.

### **Chapter 9 : Our Environment**

- A.** 1. (b) 2. (a) 3. (c) 4. (a) 5. (a)
- B.** 1. (a) Plants 2. manure 3. Humans 4. environment 5. atmosphere
- C.** 1. True 2. True 3. True 4. False 5. True 6. True.
- D.** 1. (d) 2. (e) 3. (b) 4. (a) 5. (c).
- E.** 1. People cause pollution by cutting trees, using factories,

cars and throwing garbage wrongly.

2. A factory near a river can harm people by polluting the water, making it unsafe for drinking, farming and fishing.

- F. 1. There are three types of pollution : Developing a large number of industries to released various harmful gases it make air pollution. Harmful chemical and huge amount of waste from industries is disposed into the water bodies which pollute water and make water pollution. Vehicles and industries create noise pollution through various sounds.
2. Air Pollution are affecting human beings in different ways. Breathing in pollute air is cause asthma, bronchitis, lungs cancer. Drink dirty water is cause jaundice, typhoid and noise polluting is responsible for trees, loss of hearing etc.
3. Protection of natural environment is known as conservation of the environment. We need to conserve it for the survival of the human in future. We can conserve it by plant more and more tree, save water save electricity, reduce the sue of plastic etc.
4. Plants are called producers because the provided food for the animals and as well as human beings.
5. Cutting down the trees is called deforestation.
6. Greenhouse gases in the atmosphere trap the heat of the sun, leading to a rise in Earth's temperature is called global warming.

## Chapter 10 : Natural Disasters

A. 1. (a) 2. (b) 3. (c) 4. (a) 5. (b) 6. (b).

B. 1. crust, rocks 2. Volcanoes, sea 3. water 4. Rain, flood  
5. Landslides 6. Earthquake.

C. 1. (a) 2. (d) 3. (e) 4. (c) 5. (b).

D. 1. True 2. True 3. False 4. True

E. 1. Magma is molten rock inside the Earth while lava is magma that has erupted onto the surface.

2. A cyclone is a big storm with strong winds and rain. A tsunami is a huge wave caused by under water earthquakes.

F. 1. Tsunamis cause more damage in harbours because the shallow water increases their height and force causing stronger impacts.

2. We should grow more trees to get clean air, reduce pollution and protect the environment.
- G.**
1. Earthquake caused by movements deep inside the Earth. They cause a lot of damage of life & property. They create different changes in the outer layer or insides of the Earth.
  2. The strong heat melts the hard rock and comes in the form of magma from the deep inside the earth through cracks in the Earth's surface. Volcanoes can be active, dormant and extinct. Volcanoes that have erupted in recent years and may erupt again any time are called active volcanoes. Volcanoes that are currently in active but have the potential to erupt again in future are called dormant volcanoes. Volcanoes which have stopped erupting are called extinct volcanoes.
  3. Tsunami waves are capable of killing thousands of residents along the coasts in entire town or village and over lakhs of people.
  4. A tsunami is a rises of huge waves caused by an underwater disturbance such as an earthquake or a volcanic eruption. 'Tsunami' is a Japanese word which means harbour wave.
  5. Tsunami cause destruction on the seashore within seconds. The waves formed due to any disturbance inside water travel in all directions from the sea of disturbance.
  6. Rain is the main cause of flood.
  7. Due to less rainfall, scarcity of water, people die due to hunger and water, this condition is called drought.

### **Chapter 11 : Soil Erosion and Conservation**

- A.** 1. (b) 2. (b) 3. (c) 4. (b) 5. (a) 6. (c)
- B.** 1. soil 2. Formation 3. Sandy 4. Earthworms 5. grass and plants
- C.** 1. True 2. True 3. True 4. False 5. True
- D.** 1. (c) 2.(d) 3. (e) 4. (b) 5. (a)
- E.** 1. Overgrazing by cattle should be avoided to prevent soil erosion and protect plant growth.
2. Grasses should be grown on barren land because they help prevent soil erosion, improve soil quality, hold water, and provide food for animals.
- F.** 1. Soil is formed by the breaking down of rocks due to action

of wind, water, temperature and microorganism.

2. The uppermost layer of the Earth is called soil. It is important in many ways. (a) Plants need soil to grow. (b) Snake, ant, rabbit use soil as home (c) We use soil for making pots etc.
3. Soil conservation means taking steps to protect and improve the soil. We can conserve soil by plantation, bunds, terrace farming, avoiding overgrazing, cover crops, dams and embankments tree and grass strips.
4. Heavy rain washes the soil and running water takes a lot of soil.
5. When wind blows it takes away the top layer of soil leaving the land barren.
6. Man cut down the trees to meet the different needs. When trees are cut down the soil becomes loose and it is easily carried away.

### **Chapter 12 : Air and water**

- A.** 1. (b) 2. (a) 3. (a) 4. (c)
- B.** 1. Earth 2. ultraviolet 3. Carbon dioxide 4. Helium 5. Neon
- C.** 1. True 2. True 3. True 4. True
- D.** 1. (e) 2. (d) 3. (a) 4. (b) 5. (c).
- D.** 1. Air is a mixture of many gases. Air around the Earth is called the atmosphere.
2. Troposphere is the lowest layer of the atmosphere of earth. About 80% of all the air of the atmosphere is in troposphere.
3. We would not be able to live on the earth without atmosphere because it protects us from the harmful ultraviolet rays of the sun by absorbing them.
4. Settling down of heavy insoluble impurities present in the water is called sedimentation. The process of pouring out the clean water into another vessel is called decantation.

### **Chapter 13 : Our Universe**

- A.** 1. (b) 2. (b) 3. (c) 4. (a) 5. (c)
- B.** 1. Earth 2. grey 3. gravitation 4. asteroids 5. planet
- C.** 1. (e) 2. (d) 3. (a) 4. (b) 5. (c)
- D.** 1. False 2. True 3. False 4. True 5. False.
- E.** 1. The moon shines because it reflects light from the Sun.



2. Because of its changing position relative to the Earth and Sun causing different amounts of sunlight to be reflected.
  3. Because it has no air to carry sound waves.
- F.**
1. The solar system consists of the sun and its planets of eight planets and their moon. The solar system is shaped like a disc and forms a tiny part of galaxy. There are eight planets in our solar system.
  2. Water covers over 70% of the Earth's surface so it is called Blue Planet.
  3. Mercury, Venus, Earth and Mars are called inner planets and Jupiter, Saturn, Uranus and Neptune are called outer planets.
  4. There is no air and no water on moon so life cannot exist on the moon.
  5. Man made satellite are objects which revolve around the Earth just as the moon does. They are used in communication, weather forecasting, transport instruments etc.

#### **Chapter 14 : Social and Cultural Awakening**

- A.** 1. (b) 2. (a) 3. (b)
- B.** 1. reformer of the 2. 1856 3. RamKrishna Mission 4. 1886  
5. Poona Seva Sadan
- C.** 1. True 2. False 3. True 4. False
- D.** 1. Raja Ram Mohan Roy was a great social reformer. He was a great scholar of Arabic, Persian & Sanskrit.  
2. Swami Dayanand Saraswati founded Arya Samaj.  
3. Sir Syed Ahmed Khan was a social reformer who worked in favour of modernisation in the Muslim society.