

Chapter: 9

Q.1 Fill in the blank and rewrite the completed statements

1

1 A description of the climatic conditions of short duration in a particular area is

Ans A description of the climatic conditions of short duration in a particular area is **weather**.

Q.2 Match the pair

3

1	Column A	Column B
	i. Biomedical waste	a. Glass, rubber, carry bags, etc.
	ii. Industrial waste	b. Bandages, cotton, needles, etc.
		c. Radioactive material
		d. Chemicals, pigments, ash, etc.

Ans	i. Biomedical waste	Bandages, cotton, needles, etc.
	ii. Industrial waste	Chemicals, pigments, ash, etc.

2	Column A	Column B
	i. Urban waste	a. Lead, arsenic
	ii. Mining waste	b. Strontium-10, Cerium-141
		c. Non-functional TV sets, cell phones
		d. Glass, rubber, carry bags, etc.

Ans	i. Urban waste	Glass, rubber, carry bags, etc.
	ii. Mining waste	Lead, arsenic

3	Column A	Column B
	i. Harmful waste	a. Glass, rubber, carry bags, etc.
	ii. Domestic waste	b. Bandages, cotton, needles, etc.
		c. Radioactive material
		d. Left over food, vegetables, peelings of fruits.

Ans	i. Harmful waste	Radioactive material
	ii. Domestic waste	Left over food, vegetables, peelings of fruits.

Q.3 Write Short Notes

8

1 Industrial waste

Ans i. Industrial waste contains pigments, chemicals, sludge, ash, metals etc.

ii. These are very harmful for various ecosystems; since, if saturated in the soil or water, it can spread through

the food chain.

2 Plastic waste

- Ans**
- Plastic waste is a kind of non-biodegradable waste.
 - It causes harmful effect on the environment, since they need more than lac of years for their degradation.
 - When in the soil, they are consumed by the cattle and can affect their health.
 - The amount of plastic used in the developing and developed countries is enormous; hence the amount of waste generated from it is also enormous.
- Therefore, it is important to reduce its waste and recycle it.

3 Climatic factors

- Ans**
- Climate plays a very important role in our day to day life.
 - It influences our basic needs like food, clothing, and shelter as well as our occupation.
 - Climate is important for an agrarian country like India.
 - The climatic factors like direction and speed of wind, temperature, atmospheric pressure, etc. are considered during construction of runways, seaports, huge bridges and skyscrapers, etc.

4 Principles of first aid

Ans The principles of first aid are as follows:

Life and Resuscitation – ABC:

- Airway:** If the victim has difficulty breathing, the head should be held in a backward sloping position or the chin should be raised, so that the respiratory passage remains open.
- Breathing:** If, breathing has stopped, the victim should be given artificial ventilation by mouth to mouth resuscitation.
If the victim is unconscious, then after giving mouth to mouth respiration twice, the heart should be pressed down hard by pressing the chest with both the palms. These two actions should be repeated alternately about 15 times. This is called cardio-pulmonary resuscitation (CPR). It helps to bring the circulation back to normal.
- Circulation:**

Q.4 Attempt the following.

- 1** A group of friends were having fun during trekking, but met with an accident and some got injuries like sprains, twisting and contusion.
What first aid should be provided to all the victims of accidents who are injured?

Ans The victims of accidents, who have injuries like sprains, twisting, and contusion, the RICE remedy should be applied

- Rest:** Allow the victim to sit in a relaxed position.
- Ice:** Apply an ice-pack to the injured part.
- Compression:** After the ice-pack treatment, the injured part should be massaged gently.
- Elevate:** The injured part should be kept in a raised/ elevated position.

Q.5 Distinguish between

- 1** Weather and climate

Ans

	Weather	Climate
i.	Atmospheric conditions at a specific time at a particular place are referred to as weather.	Climate is a long term predominant condition of the atmosphere.
ii.	Weather depends upon the prevailing conditions of the air.	Climatic depends upon the daily readings of various weather related parameters recorded for several years.
iii.	Weather can change daily.	Climate does not change continuously.
iv.	Changes in the weather occur for a short period of time.	Changes in the climate occur for a very long period of time

- 2** Degradable and non-degradable waste.

Ans	Degradable waste	Non-Degradable waste
i.	Degradable waste is easily degraded by microbes.	Non-biodegradable waste is not easily degraded because it requires a very long period of time and the use of various techniques.
ii.	It mainly includes, kitchen waste (spoiled food, fruits, vegetables), agricultural waste.	It includes plastic, metal, and other similar materials.
iii.	It is mainly organic type and known as wet solid waste or wet garbage.	it is known as dry solid waste or dry garbage.
iv.	iv. If carefully decomposed, we can get compost and fuel of good quality from it. Being organic they are easily decomposed.	It can be recycled and reused. They remain accumulated for years and extremely harmful to the environment and reach food chain.

Q.6 Give examples

4

1 Give any 4 Industrial waste

- Ans**
- i. Chemicals
 - ii. Pigments
 - iii. Sludge
 - iv. Ash
 - v. Metals, etc.

2 Give any 4 examples of the importance of climate in the living world with explanations, in your own words.

- Ans**
- i. Climate affects the type of soil, and the plants growing in that particular type of soil.
 - ii. Thus, it decides the food, diet, clothing, housing, occupations, and lifestyle of people living in that particular area.
 - iii. Microbes in the soil play an important role in formation of organic materials. This process also depends upon various climatic factors. Due to which the specific types of crops can be grown in specific type of soil.

Q.7 Explain with the help of examples

6

1 Explain with suitable examples, the care to be taken when using the methods of transporting patients.

- Ans**
- i. If the patient is injured due to some kind of an accident, following methods can be used to transport the victim:
 - ii. Cradle method: Useful for children and under-weight victims.
 - iii. Carrying piggy back: Useful for carrying patients who are unconscious.
 - iv. Human crutch method: If one of the legs is injured, victim should be supported with minimum load on the other leg.
 - v. Carrying on four-hand chair: this is useful when support is needed for the part below the waist.
 - vi. Pulling or lifting method: This method is used for carrying an unconscious patient, through a short distances.
 - vii. Carrying on two-hand chair: Useful for patients who cannot use their hands but can hold their body upright.
 - viii. Stretcher: In an emergency, if a conventional stretcher is not available, then a temporary stretcher can be made using bamboos, blanket, etc.

2 Explain with suitable examples, the relationship between weather forecasting and disaster management.

- Ans**
- i. Weather forecasting predicting about the future calamities like heavy rainfall, sand storms, dust storms, hot and cold waves, tsunamis etc. which can be communicated to various departments, all types of mass medias, and all citizens.
 - ii. Taking into consideration, these predictions, the disaster management can be implemented accordingly through proper planning, organized activity and co-ordination.
 - iii. For example, in case of such predictions, people would be alerted to stay away from the site or to remain inside their homes.
 - iv. Preparation to face the disaster can be done.
 - v. Immediate actions in the disaster situation can be carried out.
 - vi. For example, in case of a prediction of flood due to heavy rainfall, boats are used by the civil

administration to rescue people trapped in the area of concern. As an emergency measure, wooden boards, bamboo floats, air-filled rubber tube form a tyre can be used to advantage.

vii. In this manner, we can explain the inter-relationship between the weather forecast and the disaster management.

Q.8 Complete the sentences in paragraph

3

1 Complete the statements using the given options.

(Geographic favourability, electricity, pollution, climate, weather, Microbes, observatory)

- i. Of the abiotic factors that affect biodiversity by far the most important is
- ii. A description of the climatic conditions of short duration in a particular area is
- iii. Irrespective of the progress of human beings, we have to think about
- iv. Establishments where various climatic factors are recorded are called
- v. in the soil play an important role in formation of organic materials.
- vi. America is the largest producer of from solid waste.

Ans i. Of the abiotic factors that affect biodiversity by far the most important is **climate**.
ii. A description of the climatic conditions of short duration in a particular area is **weather**.
iii. Irrespective of the progress of human beings, we have to think about **Geographic favourability**.
iv. Establishments where various climatic factors are recorded are called **observatory**.
v. **Microbes** in the soil play an important role in formation of organic materials.
vi. America is the largest producer of **electricity** from solid waste.

Q.9 Answer the following

9

1 Explain Monsoon model in details.

Ans i. Monsoon models can produce very accurate forecasts of rainfall during monsoon season in India.
ii. The India Meteorological Department (IMD) and Indian Institute of Tropical Meteorology (IITM) works towards designing and developing various monsoon models.
iii. The first official seasonal monsoon forecast was issued by H.F. Blanford, the founder of IMD which was based entirely on Himalayan snowfall.
iv. In 1930's, Sir. Gilbert Walker, the then director of IMD, put forth a hypothesis regarding the nature of monsoon, based on the relationship between various worldwide climatic factors, the Indian monsoon and its other related factors.
v. In 1990's Dr. Vasantrya Govarikar developed a monsoon model based on 16 worldwide climatic parameters. This model was in use from 1990 to 2002.
vi. Some types of monsoon models are mathematical (dynamic) model, holistic model and statistical model.

2 Why is e-waste harmful?

Ans i. E-waste is electronic waste.
ii. This includes non-functional TV sets, cell phones, music systems, computers and their parts, etc.
iii. These contain hazardous substances like Cadmium, beryllium, etc.
iv. When accumulated in the ecosystem, they get transported in the food chain and can cause harmful effects on the health of the living organisms.
v. The recycling of the e-waste also causes harmful effects on the health of the organisms.

3 State the scientific and eco-friendly methods of waste management.

Ans Following are the scientific and eco-friendly methods of waste management:
i. The waste should be separated and categorized and should be treated by various methods.
ii. Biomedical waste management should be carried out by incineration.
iii. The biodegradable waste should be composted to obtain the nutritive compost fertilizer.
iv. The biodegradable waste can also be composted using the vermin-compost method.
v. Industrial solid waste should be managed using land-fill method.
vi. The land-fill sites should be made safer.
vii. Pyrolysis should be used to for energy production by burning of waste at high temperature for example, Biogas, Bioelectricity.

Q.10 Answer the following in detail

5

1 How will you register your individual participation in solid waste management?

Ans We will register our individual participation in solid waste management by carrying out following activities:

- i. We will follow the 3R mantra, i.e. Reduce, Reuse, Recycle.
- ii. We would throw plastic wrappers of chocolates, ice-creams, biscuits, etc. into the dustbins.
- iii. We will avoid littering.
- iv. We will avoid the use of plastic bags and instead use a cloth bag made from old sarees or curtains etc.
- v. We will Use both the sides of paper for writing. Reusing greeting cards and gift cards.
- vi. We will avoid the use of tissue paper and prefer to use our handkerchief
- vii. We would use rechargeable batteries instead of lead batteries.
- viii. We would educate and encourage the family members and society about the solid waste management.
- ix. We would avoid 'use and throw' type of articles like pens, canned cold-drinks, tetra packs etc.

