

## 2. Air, Water and Soil Pollution

### Evaluation

#### 1 A. Question

You are expected to leave behind a good environment for your future generation. In that case, which one of the following fuels, will you use now for cooking?

[Wood, Cow dung, LPG, Kerosene, Gobar gas]

#### Answer

use of wood would lead to reduction of forests.

Cow dung leads to air pollution so it's not eco friendly.

Kerosene and LPG are non renewable resources.

So one should use gobar gas (Biogas) for cooking since it is renewable as well as eco-friendly. It also lowers the greenhouse effect on earth's atmosphere. And production of biogas includes conversion of natural organic waste into fertilizer.

#### 1 B. Question

Think of the ways in which you can use each of these things:

(a used paper envelope, an old greeting card, an empty ghee tin)

#### Answer

used paper envelope can be used to store photographs or write some important daily stuff's and paste it somewhere.

Old greeting card can be put up in a public box which are then resold at festivals to the people who can't afford to buy the new one.

Empty ghee tin Can be used for growing new plants in house or it can be used as a separate dustbin to store small metal waste or cans and then send to recycling store.

#### 1 C. Question

Rita and Aruna went out to eat ice cream. Rita dropped the empty paper cup in the dustbin. Aruna threw her cup away on the road. If you had been there, what would you have done? Why?

#### Answer

when aruna threw her cup on the road if i had been there , i would pick up the cup from road and threw it in dustbin.

Afterwards i would go to aruna to tell her the importance of waste management and to throw garbage in dustbins. Also if she sees someone throwing garbage on public place, i would ask her to stop them.

### **1 D. Question**

A group of children went to a park on a picnic. When they returned home, they left behind some empty tins and bottles, wasted crumbs of food, used paper plates and napkins. Which of these things would decompose and become part of the soil? What would happen to the rest? What should the children have done with these things?

#### **Answer**

Empty tins and bottles should have been thrown to the blue dustbin since they are recyclable, if dustbins were not available they would have taken it to home and when such 10 items were collected they must be given by their parents at recycle store.

Crumbs of food might have been given to animals like dog or cow.

Paper plates and napkins are decomposable so they must have been thrown in green dustbins.

### **1 E. Question**

Ramu collects sheets from old calendars that are blank on one side. Why does he do this? What do you think he will use these sheets for?

#### **Answer**

Ramu collects one blank side sheets from old calenders to prevent wastage of paper which comes from trees.

And Ramu might have used those sheets for painting if he is fond of painting or makes alphabets or counting poster for the poor kids and give them free of cost.

### **1 F. Question**

Outbreaks of Water-borne diseases are common after heavy rainfall, especially in poor rural areas. Name any two water-borne diseases.

#### **Answer**

Waterborne disease are caused due to polluted and contaminated water and improper sanitation in poor rural areas.

Two water borne disease are Thyphoid and cholera (caused by water contamination)

### **2 A. Question**

Trees growing near a factory often gather a lot of dust on their leaves.

**Answer**

Yes near the factory, trees have a lot of dust on their leaves because the dust and the steam coming out of the factory pollutes the air and then dust further settles on the leaves.

**2 B. Question**

When trees on the hillside are cut down, there is the danger of soil erosion on the hill.

**Answer**

The roots of trees hold the soil together, thus preventing the soil erosion. When large areas of the forest or trees are cleared, the topsoil gets eroded by wind and flowing water and leads to soil erosion.

**2 C. Question**

It is dangerous to throw harmful chemical substances into rivers

**Answer**

Yes, chemical substances are dangerous to throw into rivers because it pollutes the water and aquatic life like fishes comes into danger due to chemically polluted water as well as human life.

Also, seabirds destroy waxy covering of its feathers, this causes the bird to die of cold.

**2 D. Question**

The water you drink nowadays is not safe.

**Answer**

yes water we drink nowadays is not safe. It may be contaminated with water-borne diseases, pathogens, bacteria, germs and lead as they are carried through old pipelines. So if we drink that water we could most probably be affected (fall ill) in some months.

**2 E. Question**

Urbanization and industrialization increase global warming.

**Answer**

Industrialization and urbanization lead to pollution in air, water, soil, due to the waste products it produces.

As we burn fossil fuels like coal, oil and natural gas for energy or cut down and burn forests for industrial work, it results in carbon dioxide emissions which produce Global warming and greenhouse effects.

### **3 A. Question**

Do you know how the solid waste from your house is disposed of?

#### **Answer**

Domestic waste collection services are used by us which are provided by local government authorities to dispose of solid waste from our house. This solid waste is carried by waste collection vehicles.

### **3 B. Question**

How is it collected and segregated?

#### **Answer**

The solid waste of our house is collected by waste collection vehicles to the treatment point. it can be segregated on the basis of biodegradable and non-biodegradable waste.

### **3 C. Question**

Where does it go thereafter?

#### **Answer**

After segregation Biodegradable waste is decomposed easily in compost pit or landfills. Nonbiodegradable waste is recycled for reuse. Also, it can use to recover energy like heat, electricity or fuel by various processes.

### **3 D. Question**

All of you must have heard the name "EXNORA". Collect details about various activities of that organization.

#### **Answer**

EXNORA is a nongovernment environmental services organization started in 1989 in Chennai , Tamil Nadu.

Organisation provides street cleaning services including collection of garbage, composting organic waste.

it also works with local municipalities to improve sewage leaks and water supply problem.

it conducts training programs for a school teacher to turn home into green building and waste management techniques.

### **4. Question**

Classify the following waste materials found in your house under the given heads:

1. Plastic bags 2. Cooking waste 3. Milk sachets 4. Glass pieces 5. Metal clips 6. Thermocol 7. Tissue paper 8. Leather chappals 9. old clothes 10. saw dust
11. Electrical wire.

Biodegradable	Nonbiodegradable

### Answer

Biodegradable material is capable of being decomposed to smaller products by microorganisms.

The non-Biodegradable material is not capable of being decomposed to smaller products by microorganisms and leads to pollution.

1. Plastic Bags cannot be decomposed so they are nonbiodegradable.
2. cooking waste, tissue paper and saw dust can be decomposed.
3. Milk sachets are generally made of polythene so they are nonbiodegradable.
4. Glass pieces, metal clips, and thermocol can't be decomposed so they are nonbiodegradable.
5. If no extra chemicals are added to leather then leather chappals are biodegradable.
6. Old clothes are biodegradable if made of cotton or biodegradable threads.

Biodegradable	Nonbiodegradable
Cooking waste	Plastic Bags
Tissue paper	Milk sachets
Saw dust	Glass pieces
Old Clothes	Thermocol
Leather chappals	Electrical wire
	Metal clips

### 5. Question

Complete the list of the various places of air pollution which you come across in your daily life.

1. Home (mosquito repellants etc,) 6. \_\_\_\_\_
2. Industrial area 7. \_\_\_\_\_
3. Harbour 8. \_\_\_\_\_
4. Tourist spot 9. \_\_\_\_\_

5. Dump yard 10. \_\_\_\_\_

**Answer**

6. Roads

7. Markets

8. Parking lot

9. Washrooms

10. Chemical laboratory.

**6. Question**

Debate on: The advantages and disadvantages of Nuclear Power Stations.

**Answer**

Advantages of nuclear power stations:

1. Nuclear power stations give more energy than fossil fuels.
2. Nuclear power plants reduce the possibility of extinction of fossil fuels.
3. They reduce the amount of energy generated from fossil fuels, hence it lowers green house gases emission.
4. Nuclear power plants generate electricity for 90 % of the annual time. It reduces the prices of other fuels.

Disadvantages of nuclear power stations:

1. It is very difficult to manage nuclear waste. It takes many years
2. Constructed nuclear power stations have an expiration date then they have to be dismantled.
3. Nuclear power stations are objective of terrorist organizations.
4. If nuclear power stations are not managed carefully, a little mistake can lead to very large-scale destruction.