# Garbage In, Garbage Out

#### 1-Exercise

## **Multiple Choice Questions**

- **1.** The garbage contains which of the following?
  - (a) Plastics
- (b) Metal containers
- (c) Groundnut shells
- (d) All of these
- 2. Where do we throw away the garbage from our home?
  - (a) At a distant place
- (b) At our door steps
- (c) In dust bins
- (d) All of the above
- **3.** By whom is garbage taken away from dust-bins?
  - (a) By Safai-Karamcharis
  - (b) By birds and animals
  - (c) By wind
  - (d) All of these
- **4.** Where do **Safai-Karamcharis** take the garbage after collecting it from dust-bins?
  - (a) To their homes
  - (b) To distant markets
  - (c) To landfills
  - (d) Any place of their choice
- **5.** Landfill
  - (a) is a low lying open area
  - (b) is a low lying open area, where the garbage collected from a city or town is dumped
  - (c) is a place where truck loads of garbage are dumped
  - (d) All of the above are correct
- **6.** How is garbage handled at the landfill site?
  - (a) It is spread as such over the landfill site
  - (b) It is separated into useful and non-useful components and then spread over the landfill site
  - (c) Both the above are correct
  - (d) None of the above is correct
- **7.** How are useful components of garbage utilized?
  - (a) They are dumped in compost making areas
  - (b) They are taken to various factory sites
  - (c) They are used as such
  - (d) None of the above is correct
- **8.** When some things in garbage rots completely and did not smell, it
  - (a) becomes manure
  - (b) can be mixed with soil to provide nutrients to plants

- (c) Both the above are correct
- (d) None of the above are correct
- **9.** The rotting and conversion of some materials into manure is called
  - (a) fertilization
- (b) utilization
- (c) composting
- (d) None of these
- 10. In some cities we find dust bins of two different colours for collection of garbage. These dustbins are usually of which of the following two colours?
  - (a) Green and yellow
- (b) Green and red
- (c) Blue and red
- (d) Blue and green
- **11.** Which kind of materials are to be collected in blue coloured bins?
  - (a) Plastics
  - (b) Metals
  - (c) Glass
  - (d) Materials that can be used again
- **12.** What kind of materials are to be collected in green coloured bins?
  - (a) Kitchen waste
  - (b) Plant waste
  - (c) Animal waste
  - (d) Those materials that rot completely when buried in soil
- **13.** Is it correct to bum the huge heaps of dried leaves that are collected at various places?
  - (a) Yes
- (b) No
- (c) Can't say
- (d) All are correct
- **14.** What is vermin composting?
  - (a) It is a method of preparing compost
  - (b) It is a method of preparing compost with the help of organisms
  - (c) It gives a vermilian coloured compost
  - (d) All of the above are correct
- **15.** The organisms that are used for vermicomposting are
  - (a) a type of earthworm (b) called red worm
  - (c) Both the above
- (d) None of the above
- **16.** The red worms used in vermi composting need food like
  - (a) Dead worms
  - (b) Plastic bags
  - (c) Broken toys

- (d) Vegetable and fruit wastes
- **17.** To make a comfortable home for red worms
  - (a) Dig a pit about 30 cm deep
  - (b) Dig a pit about 30 cm deep at a place which is very hot
  - (c) Dig a pit about 3 0 cm deep at a place which is very cold
  - (d) Dig a pit 30 cm deep at a place which is neither too hot nor too cold
- **18.** Which of the following may be spread at the bottom of pit dug to make home for red worms?
  - (a) A net
  - (b) Wire mesh
  - (c) Chicken mess
  - (d) Any one of net, chicken mess and wire mesh
- **19.** Which of the following may be given as food for red worms?
  - (a) Coffee
  - (b) Tea
  - (c) Vegetable and fruit wastes
  - (d) All of the above
- **20.** For red worms the food should be
  - (a) put at the top layer of soil
  - (b) put at the bottom (about 30 cm) deep of the pit
  - (c) put at about 2-3 cm deep inside the pit
  - (d) All the above are correct
- **21.** The red worms
  - (a) have teeth to grind their food
  - (b) do not have teeth to grind their food
  - (c) need not grind their food
  - (d) swallow their food
- **22.** Which of the following structures help the red worms to grind their food?
  - (a) Mouth
- (b) Teeth
- (c) Tongue
- (d) Gizzard
- **23.** Which of the following items when mixed in wastes help red worms in grinding their food?
  - (a) Powdered egg shells
  - (b) Powdered sea shells
  - (c) Both the above
  - (d) None of these
- **24.** Which of the following cannot be converted in to less harmful substance by process of composting?
  - (a) Peels of vegetables and fruits
  - (b) Plant and animal wastes

- (c) Paper
- (d) Plastics
- **25.** Which of the following can be recycled?
  - (a) Paper
  - (b) Metal containers
  - (c) Newspapers
  - (d) All of these can be recycled
- **26.** There are two heaps of garbage.

**Heap** A contains peels of fruits and vegetables, egg shells, tea leaves, food wastes, etc.

**Heap B** contains polythene bags, aluminium foils, old shoes and broken glassware.

**Heap** A and **Heap B** are buried separately indifferent pots and these pots are then covered with soil. After few days the soil is removed.

Which of the two heaps will appear black in colour and why?

- (a) Heap A, in it the waste materials have rotten completely
- (b) Heap B, in it the waste materials have rotten only partly.
- (c) Both, in both the waste materials have rotten completely
- (d) Neither A nor B, the waste materials in both of them have rotten only partly.
- **27.** Incidences of disease like skin cancer increases if
  - (a) oxygen in air decreases
  - (b) nitrogen in air decreases
  - (c) carbon dioxide in air increases
  - (d) ozone layer decreases
- **28.** What is the correct method to dispose garbage?
  - (a) To burn it
  - (b) To prepare manure from biodegradable garbage
  - (c) To recycle non-degradable garbage
  - (d) Both (b) & (c)
- **29.** Find the CORRECT statement
  - (a) Plants help in soil erosion.
  - (b) Embankments are built across the slopes of hills to avoid soil erosion.
  - (c) Stray animals help to stop the soil erosion.
  - (d) To prevent the soil erosion, the speed of flowing water is increased.
- **30.** Why disposal of garbage has become a serious problem in big cities?
  - (a) Garbage is collected in large quantities.
  - (b) Garbage contains materials like plastic and thermocol which do not decompose.

- (c) Garbage is not separated into wet garbage and dry garbage.
- (d) All of the above
- **31.** Banana peel : \_\_\_\_\_ : : plastic : non-biodegradable.
  - (a) decomposer
- (b) biodegradable
- (c) non-biodegradable
- (d) fruit
- **32.** How can you reuse plastic bottles and metal cans?
  - (a) By making compost from them
  - (b) By using them for storing things
  - (c) By melting them to form new products
  - (d) By either of these
- **33.** Which of these is causing most harm to the environment?
  - (a) Biodegradable waste (b) Poisonous waste
  - (c) Both (a) and (b)
- (d) Plastic bags.
- **34.** Low lying land used to dispose garbage is called
  - (a) garbage dump
- (b) landfill
- (c) dustbin
- (d) None of these
- **35.** If you want to recycle vegetable waste, bones, dry flowers and saw dust you will
  - (a) make compost from them
  - (b) burn them
  - (c) use them in landfills
  - (d) throw them in a lake/sea river
- **36.** This is a paste made of clay and paper. It is prepared for recycling of paper. It is
  - (a) paper-mache
- (b) clay
- (c) paper
- (d) None of these
- **37.** Why do we develop composting areas near the landfill?
  - (a) To make the look of landfill beautiful.
  - (b) It is compulsory to develop such sites.
  - (c) To utilize some useful components of the garbage.
  - (d) None of these is correct explanation.
- **38.** Why are two separate bins provided, for collecting garbage, in some cities?
  - (a) It helps the city to be categorised in a better city.
  - (b) These are provided to collect separately the materials those which do not rot into garbage heaps and the wastes that rot completely when buried in soil.
  - (c) These bins are in different colours and attracts us to put the garbage in these dustbins.

- (d) None of the above is correct.
- **39.** After a landfill site has been converted into a park or playground, no construction is allowed over it for a period of  $A \times 10$  years, where A is equal to
  - (a) 1
- (b) 2
- (c) 4
- (d) 8
- **40.** If the mass of a redworm is assumed as "A" gram. How much food can it eat in a day?
  - (a) 1 g
- (b) 2g
- (c) Ag
- (d) 2Ag

#### 2-Exercise

#### Match the Column

**DIRECTIONS:** Match Column-I with Column-II and select the correct answer using the codes given below the columns.

1.

Column-I	Column-II
(a) Landfill	(p) Completely rotten garbage
	used for plant nutrients
(b) Manure	(q) Low lying areas where
	garbage of a city is dumped
(c) Composting	(r) The process in which use
	of organisms is essential
(d) Vermi composting	(s) Converting plants and
	animal wastes into manure

(a) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$$

(b) 
$$A \rightarrow (q); B \rightarrow (p); C \rightarrow (r); D \rightarrow (s)$$

(c) 
$$A \rightarrow (q)$$
;  $B \rightarrow (p)$ ;  $C \rightarrow (s)$ ;  $D \rightarrow (r)$ 

(d) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (s); D \rightarrow (r)$$

2.

Column-I	Column-II
(a) Blue dustbins	(p) Plastics, metal and glass
(b) Green dustbins	(q) Wastes that rot completely
	when buried in soil
(c) Vermi composting	(r) Method of making
	compost
(d) Red worms	(s) Useful in vermi composting

(a) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$$

(b) 
$$A \rightarrow (q); B \rightarrow (p); C \rightarrow (r); D \rightarrow (s)$$

(c) 
$$A \rightarrow (q); B \rightarrow (p); C \rightarrow (s); D \rightarrow (r)$$

(d) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (s); D \rightarrow (r)$$

3.

Column-I	Column-II
(a) Food for red worms	(p) Tea, coffee
(b) Gizzard	(q) Structure used by red worm for grinding their food

(c) Paper mache	(r) Paste made of paper and clay
(d) Plastics	(s) When heated give out harmful gases

(a) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$$

(b) 
$$A \rightarrow (q); B \rightarrow (p); C \rightarrow (r); D \rightarrow (s)$$

(c) 
$$A \rightarrow (q); B \rightarrow (p); C \rightarrow (s); D \rightarrow (r)$$

(d) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (s); D \rightarrow (r)$$

### **Passage Based Questions**

**DIRECTIONS:** Read the passage(s) given below and answer the questions that follow

# Passage-1

At the landfill site the part of the garbage that can be reused is separated out from one that cannot be used as such. The non-useful component is then spread over the landfill and then covered with a layer of soil.

- **4.** A landfill
  - (a) is any open space where we dump the garbage
  - (b) is any open low lying area where garbage is dumped
  - (c) is an isolated spot away from the residential area that is used for dumping the garbage
  - (d) All of the above are correct
- **5.** After the separation of useful and non-usefulcomponents from the garbage at landfill site.
  - (a) the heap of useful components is spread over the landfill site
  - (b) the heap of non-useful components is spread over the landfill site
  - (c) Both the heaps are spread over the landfill site
  - (d) None of the above is correct
- **6.** We develop compost pits near the landfill site
  - (a) to utilize the available land
  - (b) to utilize some of the useful components of garbage
  - (c) to utilize some of the non-useful components of garbage
  - (d) All of the above are correct

### Passage-2

If you collect the garbage from your home and put it in separate pits covered with soil for a few days. You will find that something in the garbage rots. They form manure which is used for plants.

- **7.** The rotting and conversion of some materials into manure is called
  - (a) composting
  - (b) decomposing
  - (c) vermi composting
  - (d) All of these are correct
- **8.** Which of the following observations was the correct reporting about all the pits after 4 days when the soil was removed?
  - (a) All the material in all the pits rotted completely and there was no smell
  - (b) In some cases there was a partial rotting
  - (c) In some cases there was no change at all
  - (d) All of the above are correct
- **9.** If you are asked to identify some of the items of your kitchen waste (i.e. garbage from kitchen), which of the following are likely to be present in it?
  - (a) Fruit and vegetable peels
  - (b) Eggshells
  - (c) Dry leaves
  - (d) All of these

# Passage-3

A type of earthworm called red worm is used for composting. This method of preparing compost with the help of red worms is called vermi composting.

- **10.** For vermicomposting we have to dig a compost pit having a depth of about
  - (a) 10cm
- (b) 30cm
- (c) 50cm
- (d) 90cm
- 11. For vermicomposting we have to use red worms. We have to make a comfortable home for red worms. The home for red worms is made
  - (a) with cement and concrete at the bottom of pit
  - (b) with net or chicken mesh at the bottom of pit
  - (c) both the above are correct
  - (d) None of these is correct
- **12.** Red worms need which of the following for survival?
  - (a) Very hot environment
  - (b) Very cold environment
  - (c) Moisture
  - (d) None of the above is correct

**DIRECTIONS:** The questions in this segment consists of two statements, one labelled as "assertion A" and the other labelled as "reason R". You are to examine these two statements carefully and decide if the assertion A and reason R are individually true and if so, whether the reason is a correct explanation of the assertion. Select your answers to these items using codes given below.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- **13. Assertion** (A): Garbage contains plastics, metal containers and other wrapping materials.

**Reason (R):** Useful and non-useful components are separated out from the garbage at landfill site after spreading the garbage over landfill site.

14. Assertion (A): After a landfill site is completely filled with garbage it is converted into a park.

**Reason** (R): At a landfill site that has been converted into a park, no building is allowed to be constructed for next 50 years.

- **15. Assertion** (A): We develop some compost **making areas near the landfill.** 
  - **Reason** (R): It is done to utilise some of the useful components of garbage.
- **16. Assertion** (A): You are advised never to bum the dry leaves.

**Reason** (R): They produce harmful gases when burnt.

- 17. **Assertion (A):** Vermicomposting is done with **the help of blue worms.**
- **Reason** (R): We can recycle paper to get useful **products.**

### **Hints & Solutions**

#### Exercise-1

### **Multiple Choice Questions**

- **1.** (d
- **2.** (c)
- **3.** (a)

- **4.** (c)
- **5.** (b)
- **6.** (b)
- **7.** (a)
- **8.** (c)
- **9.** (c) It is called composting.
- **10.** (d)
- **11.** (d) Plastics, metals and glass are type of materials which can be used again.
- **12.** (d)
- **13.** (b) No, burning of dry leaves produces smoke and harmful gases which are injurious tour health.
- **14.** (b)
- **15.** (c) Redworm used in vermi composting is a type of earthworm.
- **16.** (d)
- **17.** (d)
- **18.** (d)
- **19.** (c)
- **20.** (c)
- **21.** (b) They do not have teeth to grind their food.
- **22.** (d) They have a structure called 'gizzard' which helps them in grinding their food.
- **23.** (c)
- **24.** (d)
- **25.** (d)
- **26**. (a)

- **27**. (d)
- **28.** (d)
- **29.** (b) Plant roots hold the soil and slow down soil erosion. Movement of the stray animals dig the soil and helps in soil erosion. If speed of water increases more erosion will occur. Embankments built across the slopes will help in reducing soil erosion.
- **30.** (d) All types of waste adds to the quantum of garbage in big cities.
- **31.** (b)
- **32.** (b)
- **33.** (d)
- **34.** (b)
- **35.** (a)
- **36.** (a)
- **37.** (c)
- **38.** (b)
- **39.** (b) 2x 10 = 20 years
- **40.** (c) It can eat food equal to its weight in a day.

#### **EXERCISE-2**

### Match the Column

- 1. (c)  $A \rightarrow (q); B \rightarrow (p); C \rightarrow (s); D \rightarrow (r)$
- **2.** (a)  $A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$
- **3.** (a)  $A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$

### **Passage Based Questions**

- **4.** (b)
- **5.** (b)
- **6.** (b)

- **7.** It is called composting. For vermin-composting we need some organisms.
- **8.** (d)
- **9.** (d)
- **10**. (b)
- **11.** (b)
- **12.** (c)

## **Assertion/Reason Based Questions**

- **13.** (c) Assertion is correct but Reason is false. Useful and non-useful components are separated before spreading the garbage over landfill site.
- (c) Assertion is correct. Reason is false.Assertion is correct but Reason is incorrect.No building is allowed to be constructed for next 20 years not 50 years.
- **15.** (a)Both Assertion and Reason are correct and Reason is the correct explanation of Assertion.
- **16**. (a)
- **17.** (d) Assertion is wrong while. Reason is correct.