

Chapter 16: Garbage in, Garbage out

NCERT Exemplar · Class 6 · Science

Multiple Choice Questions

Question 1

The method of preparing compost with the help of earthworms is called

A.

Composting

B.

Vermicomposting

C.

Manuring

D.

Decomposing

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) vermicomposting. Earthworms are known as farmers' friends because they improve the quality of the soil. As a result, a process known as vermicomposting was developed to make compost with the help of earthworms. This manure is nutrient-dense.

Question 2

If you dump kitchen waste in a pit, it may, after sometime

A.

Convert into compost.

B.

Convert into vermicompost.

C.

Remain as such.

D.

Remain forever in its dried form.

Answer

Correct option: A

Solution

Ans: The correct answer is option (a) convert into compost. Kitchen waste is biodegradable waste.

Question 3

Which of the following activities does not reflect responsible behaviour with regard to waste disposal?

A.

Goods carried in paper bags or cloth bags.

B.

Waste collected in polythene bags for disposal.

C.

Waste separated into those that degrade and those that do not.

D.

Making handicrafts with used up notebooks.

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) waste collected in polythene bags for disposal is unhealthy, and polythene is non-biodegradable and causes pollution.

Question 4

Paheli gave the following ill effects of the practice of burning dried leaves and other plant parts

- (i) Burning degrades the soil.
- (ii) Burning produces harmful gases/fumes.
- (iii) Precious raw material to obtain manure at low cost is lost.
- (iv) Lot of heat is generated unnecessarily.

The correct reasons of why we should not burn leaves are

A.

i, ii and iv only

B.

i, ii, iii, and iv

C.

ii and iii only

D.

ii, iii, and iv only

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) i, ii, iii, and iv.

Question 5

A garbage collector separates items mentioned below in the garbage into red, green and blue containers for their transfer to landfill, composting pit, and recycling unit respectively. Items:

(i) Plastic bags

(ii) Newspaper and journals

(iii) Screw and nuts

(iv) Vegetable peels

(v) Metal chips

(vi) Eggshells

Which items were transferred to which bin?

	RED	GREEN	BLUE
(a)	(i) and (iv)	(ii) and (iii)	(v) and (vi)
(b)	(i) and (iii)	(ii) and (v)	(iv) and (vi)
(c)	(i), (iii) and (v)	(iv) and (vi)	(ii) only
(d)	(i) and (v)	(ii) and (iv)	(iii) only

Solution

Ans: The correct answer is option

(c)	(i), (iii) and (v)	(iv) and (vi)	(ii) only
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Metal chips, screws, and nuts are disposed of in red bins. Biodegradable waste, such as eggshells and vegetable peels, is collected in green bins. The newspapers and journals will be collected in blue bins.

Question 6

The steps required for conversion of kitchen garbage into manure are given below in a jumbled form.

- (i) Put garbage in a pit
- (ii) Cover the bottom of the pit with sand
- (iii) Cover the pit loosely with a gunny bag or grass
- (iv) Add worms

Which of the following shows the correct sequence of the above steps?

A.

(ii), (i), (iii), (iv)

B.

(i), (ii), (iii), (iv)

C.

(ii), (iv), (i), (iii)

D.

(iv), (i), (ii), (iii)

Solution

Ans: None of the given options are correct. The correct answer would be (ii), (i), (iv), (iii).

Very Short Answer Questions

Question 7

Read the items mentioned in Columns I and II and fill in the related process in the Column III

Column I	Column II	Column II
a) Organic waste	Earthworms	(i) -----
b) Garbage	Dig pit and fill with garbage	(ii) -----
c) Old newspaper	Paper bags	(iii) -----

Solution

Ans: The related process in column III is given below:

Column I	Column II	Column II
a) Organic waste	Earthworms	(i) Vermicomposting
b) Garbage	Dig pit and fill with garbage	(ii) Landfill
c) Old newspaper	Paper bags	(iii) Recycling

Question 8

Correct the definitions of certain terms given below by changing only one word.

(i) Compost: Substances converted into manure for use in industries.

(ii) Landfill: Garbage buried under water in an area.

(iii) Recycling: Reuse of unused material in the same or another form.

Solution

Ans: Compost: The substances converted into manure for use in agricultural fields.

Ans: Landfill: Garbage buried under the soil in an area.

Ans: Recycling: The reuse of used material in the same or another form.

Question 9

Provide the suitable term that expresses the meaning of each of the following statements.

(a) Greeting cards made from newspapers.

(b) Contents of the waste bins.

(c) Worms convert certain kinds of waste into manure.

(d) An area where a lot of garbage is collected, spread out and covered with soil.

Solution

Ans: Greeting cards made from newspapers is known as recycling.

Ans: The contents of the waste bins are known as Garbage.

Ans: Worms converting certain types of waste into manure is known as vermicomposting.

Ans: An area where a lot of garbage is collected, covered with soil and spread out is known as landfill.

Question 10

To what use can you put the following kinds of garbage and how?

(i) Rotting smelly garbage

(ii) Dry leaves collected in a garbage

(iii) Old newspapers

Solution

Ans: Rotting smelly garbage is biodegradable. Thus, it can be converted into compost, which could be used as manure in potted plants or home gardens.

Ans: Dry leaves collected in the garbage can also be used as compost or vermicompost.

Ans: The old newspapers can be used for making paper bags, covering books, converted into pulp for use in handicrafts and also for making recycled paper.

Question 11

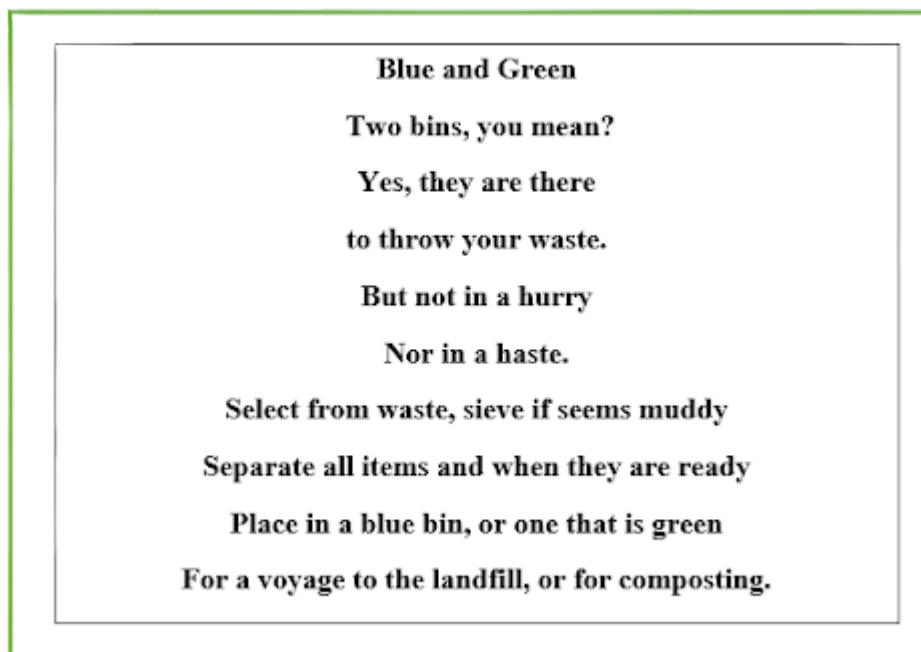
Paheli was writing a letter to her friend. She crumpled and threw the first draft of her letter on the floor as it had become untidy. Similarly she crumpled and threw 6 more papers on the ground. In the end, she picked them up and put them in a polythene bag and threw them on the road outside her house. Do you think Paheli's actions were responsible? What would you have done if you were in her place?

Solution

Ans: No, Paheli's actions were hardly those of a responsible citizen. She threw out a lot of papers and then threw them in a polythene bag on the road, causing pollution. If I had been in her house, I would have practiced on rough paper or kept the destroyed paper for later use, such as decorating.

Question 12

Read the poem written below and then answer the questions from the information gathered from the book or elsewhere.



(i) Name the two kinds of waste that need to be separated from each other in two different waste bins.

(ii) Name two items of waste each that need to be sent to a (a) landfill, (b) for composting.

Solution

Ans: Biodegradable waste and non-biodegradable waste are the two types of waste. With the help of microbes, biodegradable waste is easily converted into simpler forms and used as manure. Non-biodegradable trash, on the other hand, cannot be transformed into simpler forms but can be recycled. Hence, they must be kept separate.

Ans: (a) Waste like metals, plastic items, glasses, etc., are sent to landfills.

(b) Wastes like vegetable peels, fruits, plant wastes, dried leaves are for composting.

Question 13

Beera, a farmer, would clear his field every day, and burn dry leaves fallen on the ground. After sometime he found that those living in huts near his field were suffering from cough and breathing problems.

(i) Can you explain why?

(ii) Also suggest an environment-friendly way to dispose of the dry leaves.

Solution

Ans: Burning of leaves releases harmful and toxic gases and creates a lot of fumes that cause diseases in humans and animals. That is why the people living nearby suffer from cough and breathing problems.

Ans: He can compost the dry leaves and use them as manure at his potted plants instead of burning them.

Long Answer Questions

Question 14

Put a tick (✓) against the garbage items given in Table 16.1 which could be converted into manure. Put a cross (×) against the others.

	Garbage Items	Make manure or not
(i)	Eggshells	
(ii)	Straw	
(iii)	Dry flowers	
(iv)	Pebbles	
(v)	Broken pieces of glass	
(vi)	Nails and screws	
(vii)	Plastic Bangles	

(viii)	Leftover food	
(ix)	Steel broken vessel	
(x)	Dead Animals	

Solution

Ans: The garbage items that could be converted into manure are marked with a Yes.

	Garbage Items	Make manure or not
(i)	Eggshells	Yes
(ii)	Straw	Yes
(iii)	Dry flowers	Yes
(iv)	Pebbles	No
(v)	Broken pieces of glass	No
(vi)	Nails and screws	No
(vii)	Plastic Bangles	No
(viii)	Leftover food	Yes
(ix)	Steel broken vessel	No
(x)	Dead Animals	Yes

Question 15

The pie charts A and B shown in Fig. 16.1 are based on the waste segregation method adopted by two families X and Y respectively.



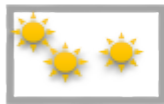
Metal



**Kitchen
Waste**



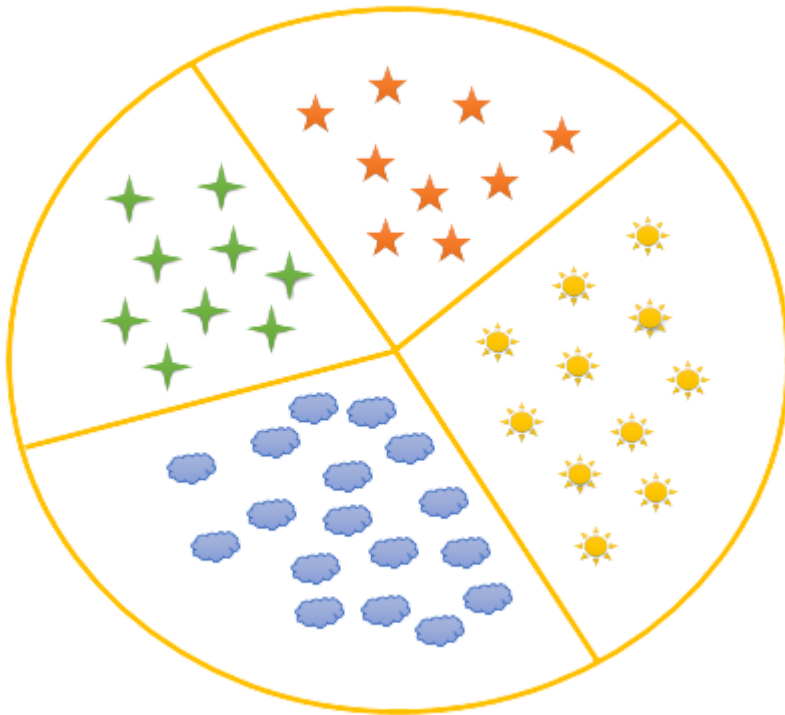
**Polythene
Bags**



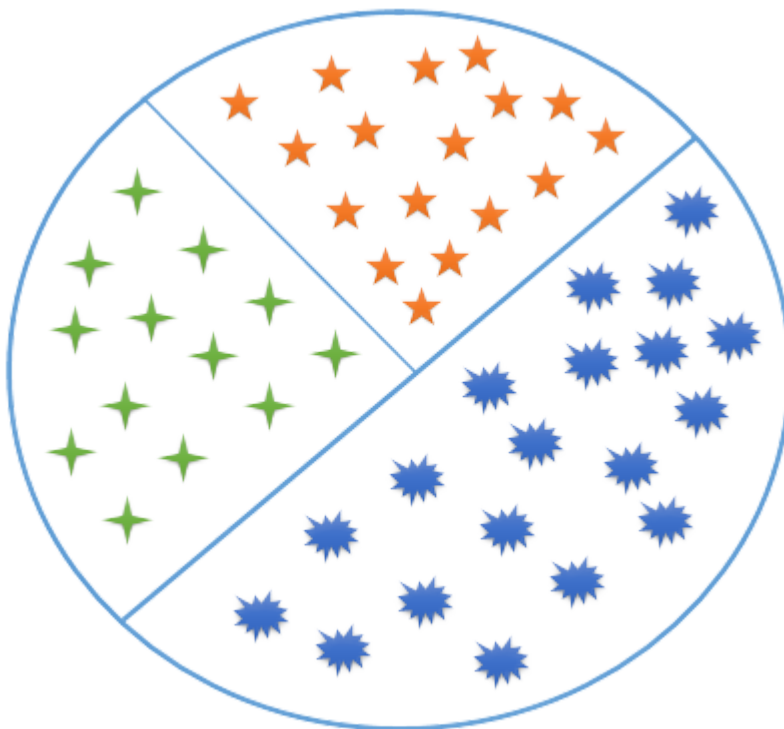
**News
Paper**



**Kitchen
Waste
and
Polythene
Bags**



X



Y

Solution

Ans: Family X is more environmentally aware and conscious of the effects of improper garbage disposal. As a result, it separates non-biodegradable garbage such as polythene bags from biodegradable waste such as kitchen waste.

Question 16

Given below are steps in vermicomposting and each step has been given an alphabet. Rearrange the steps in the correct sequence and write the alphabets on the chart provided. One step is done for you.

F Dig a pit in a suitable place in your garden.

C Spread sand on the floor of the pit.

E Add vegetable peels and fruits waste in the pit.

A Sprinkle water to keep it moist.

D Place red worms in the pit.

B Cover with a gunny bag or grass.

Step 1 – F

2 –

3 –

4 –

5 –

6 –

Solution

Ans: The correct steps of vermicomposting are as follows:

1 – F Dig a pit in a suitable place in your garden.

2 – C Spread sand on the floor of the pit.

3 – E Add vegetable peels and fruit waste to the pit.

4 – A Sprinkle water to keep it moist

5 – D Place red worms in the pit.

6 – B Cover with a gunny bag or grass.

Question 17

Write 3 sentences on what comes to your mind when you have a chance to see the following.

(a) A rag picker.

(b) A cow eating a polythene bag.

(c) Foul odour emanating from garbage at the entrance of your house.

Solution

Ans: i. On seeing a rag picker, I feel that he is poor and does not get enough food; it was doing such work.

ii. He does his job very obediently. He separates biodegradable and non-biodegradable waste into two different sacs.

iii. He is exposing himself to various diseases by working in such areas.

Ans: i. Cow is exposed to unsafe things.

ii. It's possible that it'll choke on the plastic bag.

iii. The polythene bag might also get stuck in its gut leading to the cow's death.

Ans: i. Waste is being produced in a large amount.

ii. We expect others to clear waste when we are also involved in it.

iii. Mosquitoes, flies are born because of this garbage, which causes various diseases. The air is also contaminated, resulting in illnesses.

Question 18

Beautiful hand crafted articles like boxes and toys are made of paper pulp in our country. Can you explain how paper pulp which is made from paper can be used to make hard boxes and other articles?

Solution

Ans: Paper pulp can be used to make hard boxes and other items in the following ways:

- (a) To begin, we can create a stencil by unfolding a small cardboard box and tracing it onto a piece of cardboard the same size as a mould. Cut the shape now.
- (b) Place the stencil between mould and the deckle.
- (c) To remove the pulp, raise the mould, stencil, and deckle in one continuous action.
- (d) Take the box off the stencil and set it aside to dry.
- (e) Now, fold the box and tape it to assemble it.
- (f) The box is ready.

Question 19

Recently, a ban on plastic bags has been imposed in many places? Is the ban justified? Give reasons in three sentences.

Solution

Ans: Plastic ban is justified as-

- i. Non-biodegradable waste is plastic.
- ii. People throw plastic into rivers and seas, causing marine and aquatic creatures to die.
- iii. The improper disposal of plastic has choked drainage systems.

Question 20

Why should we not burn plastic items?

Solution

Ans: When plastic is burnt, a variety of hazardous gases are released. These gases pollute the environment and cause major health problems in humans. The gases that are released pollute the air, and the ashes that are left pollute the soil.

Question 21

What happens when-

- (a) Cooking medium is made to flow down the drain.**
- (b) Insecticides, motor oil, and paints are poured down the drain.**
- (c) Tea leaves, cotton swabs and old soft toys are thrown into the drain.**

Solution

Ans: If we put a cooking medium down the drain, it will clog the soil pores and drain pipes.

Ans: If we pour insecticides, motor oil, or paint down the drain, we will kill the microbes that clean the wastewater.

Ans: If we pour tea leaves, cotton swabs, and old soft toys down the drains, they will clog the pipelines, stopping water flowing through drains and into public water sources.

Question 22

Answer the following questions in one or two words or sentences:

- (a) Why should we prefer to use paper bags rather than polythene bags?**
 - (b) Who, out of the following, should properly dispose of the garbage – father, mother, elder brother, younger sister?**
 - (c) Which one out of beetles, roundworm and earthworm are used for vermicomposting and why?**
-

Solution

Ans: Paper bags should be preferred over polythene bags since the paper is biodegradable and reusable. In contrast, polythene bags are non-biodegradable and damaging to animals, humans, plants, and the environment.

Ans: Garbage should be properly disposed of by all family members. Every human on the planet has a duty to do so.

Ans: Earthworms are the animals used in vermicomposting. They compost waste from plants and animals, as well as their goods.

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