

## L16: Household Equipment

---

### Keywords

Recreational	Circumstances	Standization	Utensils	Blunt	Durability
Efficient	Grameen sheetal	Precautions	Fuses	Bakelite	Unclogged

### In-Text Questions

#### In-Text Questions 16.1

1. Fill in the blanks

- Equipments are classified as \_\_\_\_\_ and \_\_\_\_\_.  
(Answer: **electrical, non-electrical**)
- Efficient use of equipment includes their correct selection, \_\_\_\_\_ and \_\_\_\_\_. (Answer: **operation, care**)
- \_\_\_\_\_ is a promise for efficient performance of an equipment.  
(Answer: **Guarantee**)
- The foremost criteria for the selection of equipment are \_\_\_\_\_ based. (Answer: **Need**)
- Equipment that can perform a number of functions is generally more \_\_\_\_\_. (Answer: **Expensive**)
- Good after-sales service ensures easy \_\_\_\_\_ and \_\_\_\_\_.  
(Answer: **Repair, replacements**)

2. State which of the following statements are true (T) or false (F). Justify your answer.

- Only electrical equipments are labour saving. **F**

Because: Because we have a number of non-electrical items like pressure cooker, solar cooker, hand juicer, manual chopper etc which are also labour and time saving.

b. Non-electrical equipments are manually operated. **T**

Because: If the electricity is not being used, we have to use our hands or legs to operate them. For example, manual sewing machine is operated using both hands and legs.

c. Standardized products ensure safety and durability. **T**

Because: They are tested for safety and durability while still in the factory by government agencies. Only if they pass the test, they are allowed to be sold in the market outside.

d. An ISI mark is given to all electrical equipments. **T**

Because: Actually all the manufactures of any electrical equipment must get this standardisation mark (ISI mark) for their product. We must not buy any electrical equipment if it does not carry ISI mark.

e. Expensive equipments fulfill family needs more than inexpensive ones. **F**

Because: the choice of the equipment is made as per the need, not the cost of the equipment. For example, a simple refrigerator does all the requisite job; there is generally no need to buy a high-end, digital display refrigerator.

## In-Text Questions 16.2

Fill in the blanks by using the most suitable words from the list given below.

Wire, microwave oven, synthetic, plug, MCB/fuse, accidents, vent pipe, warm.

1. Careless use of household equipments can cause serious \_\_\_\_\_.  
(Ans: **Accidents**)
2. Before cleaning electrical equipments the \_\_\_\_\_ should be removed from the switch board. (Ans: **Plug**)

3. A \_\_\_\_\_ fixed on the electrical main point cuts off the power supply by breaking the circuit. (Ans: MCB/fuse)
4. \_\_\_\_\_ clothes should not be worn while working in the kitchen. (Ans: Synthetic)
5. The \_\_\_\_\_ of a pressure cooker should be kept unclogged and clean to allow steam to pass freely. (Ans: Vent pipe)
6. Metal containers should not be used while cooking in a \_\_\_\_\_. (Ans: Microwave oven)

### In-Text Questions 16.3

1. What do you understand by conservation of electricity at home? Explain with examples.

Answer: The electricity that we use at home or in office is made **mainly** from non-renewable sources like coal. Even, when it is made using renewable sources like Wind and Sun, the cost of production is high.

Hence, we must all conserve electricity always. Some ways to do that at home are:

- i. Avoid frequent opening of the refrigerator door.
- ii. Switch off all the lights and fans when you leave a room.
- iii. Use a low wattage tube light for general lighting in your bathroom, toilet, garden, etc.
- iv. Minimise the use of geyser, washing machine, mixer-grinder, etc.
- v. Keep your electrical appliances in good working condition. If any part is defective, get it repaired immediately.
- vi. Increase the use of solar lantern, cooker and water heater to save electricity.

vii. Use LED bulbs .

2. State four points you would keep in mind for conserving fuel at home.

Answer: The four points to keep in mind for conserving fuel at home are:

- i. Clean the burner of your stove (gas/pressure/wick) regularly.
- ii. Soak pulses, dals and rice for sometime before cooking.
- iii. Always use a pressure cooker instead of an open pan.
- iv. Cover the pan while cooking.
- v. Use solar cookers.

3. Write 'True' and 'False' for the statements given below. Give reasons for your answer

- a. A stove burner does not require regular cleaning. **'False'**

Because: It needs to be cleaned regularly to prevent clogs. A clog-free burner heats the food fast and saves the fuel.

- b. Repeated whistles of pressure cooker kept on high flame indicates fast cooking. **'False'**

Because: A cooker gives repeated whistles to take out extra, unnecessary pressure. We must lower the flame after the pressure is built in the cooker ie. after the first whistle.

- c. Tube lights and CFLs consume less electricity. **'True'**

Because: Tube lights, CFLs, LED bulbs are designed to consume less electricity.

- d. Keeps the tap running while brushing.

Because: A running tap wastes a lot of water. We must turn on the tap only when we need water.

- e. While cooking food in a pan, do not put the lid on the vessel. **'False'**

Because: If we do not put a lid, the food takes a longer time to get cooked. This wastes the fuel.

f. Washing a car with water collected in a bucket saves water. True'  
Because: We will use only required amount of water when we use bucket. If we use a pipe, water gets wasted.

## Terminal Questions

1. Define the term “labour saving device”.

Answer: A labour-saving device helps to perform **maximum amount of work with minimum effort, in the shortest possible time.**

2. State the points you will keep in mind while using electrical equipments at home.

Answer: The points to keep in mind while using electrical equipments at home are:

- a. Do not touch any electrical equipment with wet hands or feet.
  - b. See that the wire and plugs of all electrical equipment are in proper order and there is no leakage of electricity
  - c. Make sure that the plug is tightly fixed in the socket and the wire is securely tightened with a 3-pin plug.
  - d. If you get even a light electric shock from any equipment, do not use it again until it has been repaired.
  - e. When you plug in the electrical equipment, see that its wire does not come in your way when you walk.
  - f. Remove the plug before cleaning an equipment to cut off the power supply.
  - g. Keep all electrical equipment away from water taps.
  - h. Do not wash these equipments with water unless the instructions say so.
3. What is “grameen sheetal”? Discuss its utility.

Answer: The “grameen sheetal” is a non-electrical equipment used to keep food cool.

- It consists of a small cupboard made of wire-mesh.
- This is kept covered with a jute cloth (taat) on all sides except the front.

- The ends of the jute cloth dip into bowls of water and hence remain wet constantly.

4. List five factors to be kept in mind while selecting household equipments

Answer: The factors to be kept in mind while selecting household equipments are:

- Need
- Time, money and energy saving
- Easy to clean
- Safety
- Cost
- After-sales service

Si No.	Factor	Description
i.	<b>Need</b>	Do not purchase an equipment because others have it or it is cheap. Buy only if you need it.
ii.	<b>Time, money and energy saving</b>	When you are buying an item, see that it is useful to you in terms of saving your time and energy as well as your money. Ex: Pressure Cooker
iii.	<b>Easy to clean</b>	The equipments bought should be made of good material which is easy to wash, clean and maintain Ex: A toaster with a removable crumb tray is easy to clean.
iv.	<b>Safety</b>	Buy only Standardized Products (which have standard marks such as ISI, FPO, AGMARK etc)
v.	<b>Cost</b>	Do the market survey, and buy the best

Si No.	Factor	Description
		model that is available for the money you pay.
vi.	<b>After-sales service</b>	Before buying the product, Always ensure that seller promises to provide the necessary repair or maintenance support in a written format.

5. State four guidelines for proper care and maintenance of household equipments.

Answer: The four guidelines for proper care and maintenance of household equipments are:

- i. Do not touch any electrical equipment with wet hands or feet.
- ii. Use pans with bakelite or wooden handles.
- iii. Immediately replace the cracked rubber tube of a LPG stove
- iv. Carefully store equipment with sharp blades or edges so that their sharp ends do not cause any injury.

6. Which of the following actions are unsafe and why?

a. Wearing nylon clothes while working in the kitchen. **Unsafe**  
Because: Nylon catches fire easily, melt and sticks to the skin causing very deep burns.

b. Refilling oil in the stove or generator while it is still on. **Unsafe**  
Because: The equipment may burst.

c. Using a cracked tube to connect the gas cylinder to the gas stove.  
**Unsafe**  
Because: Because gas will leak from the cracked tube and cause serious fire accidents.



d. Using nylon scrubbers to clean non-stick pans. **Unsafe**  
Because: Hard scrubbers remove the non-stick coating.

e. Forcing the steam out of a pressure cooker by lifting its weight. **Unsafe**  
Because: The steam is very hot and may cause serious burn injuries.

f. Removing the plug before touching the electrical equipments.

g. Operating electrical equipments with wet hands. **Unsafe**  
Because: Water is a good conductor of electricity and may cause electric shock.

## Previous-Year Questions

1. Mention any *two* ways by which serious fire accidents can happen at home.  
1

Answer: The two ways by which serious fire accidents can happen at home are:

- i. The gas may leak from a gas cylinder if cracked pipes are used. This may trigger fire accident.
  - ii. A short circuit in electricla wiring also leads to fire accidents.
2. When you use electrical equipment in your kitchen, what are the *four* points you will keep in mind? 4

Answer: The points to keep in mind while using electrical equipments at home are:

- a. Do not touch any electrical equipment with wet hands or feet.
- b. See that the wire and plugs of all electrical equipment are in proper order and there is no leakage of electricity
- c. Make sure that the plug is tightly fixed in the socket and the wire is securely tightened with a 3-pin plug.
- d. If you get even a light electric shock from any equipment, do not use it

again until it has been repaired.

- e. When you plug in the electrical equipment, see that its wire does not come in your way when you walk.
  - f. Remove the plug before cleaning an equipment to cut off the power supply.
  - g. Keep all electrical equipment away from water taps.
  - h. Do not wash these equipments with water unless the instructions say so.
3. Suggest *four* safety rules each while buying and using electrical appliances. 4

Answer: The *four* safety rules each while buying and using electrical appliances are:

Action	Safety Rules
Buying Electrical Appliances	<ol style="list-style-type: none"> <li>1. Buy only products which have ISI mark.</li> <li>2. Buy from Authorized dealers only.</li> <li>3. Ensure that the equipment has 3-pin plug and proper insulation.</li> <li>4. Do not select any electrical equipment which has exposed metal parts.</li> </ol>
Using Electrical Appliances	<ol style="list-style-type: none"> <li>1. Do not touch any electrical equipment with wet hands or feet.</li> <li>2. See that the wire and plugs of all electrical equipment are in proper order and there is no leakage of electricity</li> <li>3. Make sure that the plug is tightly fixed in the socket and the wire is securely tightened with a 3-pin plug.</li> <li>4. If you get even a light electric shock from any equipment, do not use it again until it has been repaired.</li> </ol>

4. Differentiate between guarantee of service and after-sales service with the help of examples. 4

Answer: The difference between guarantee of service and after-sales of service:

guarantee of service	after-sales of service
<ul style="list-style-type: none"> <li>• Guarantee of service means that the manufacturer takes responsibility for the working of that equipment for a specified period of time.</li> <li>• For example: The manufacturers of refrigerators may give a guarantee of 5 years, and manufacturers of ceiling fans may give a guarantee of 7 years.</li> <li>• This means that for 5 and 7 years your refrigerator and fan should give you trouble free service.</li> <li>• If any trouble appears, the manufacturer will repair it free of cost.</li> </ul>	<ul style="list-style-type: none"> <li>• After-sales service means If you need any service, repair or replacement of parts of an equipment, then it should be conveniently available at an affordable price.</li> <li>• For cars made by Hyundai, it is easy to get after sales service.</li> <li>• But for cars made by Volvo company, it is difficult to obtain after sales service in India.</li> </ul>

5. Briefly explain any six features you would keep in mind while selecting any household equipment. 6

Answer: The factors to be kept in mind while selecting household equipments are:

- i. Need
- ii. Time, money and energy saving
- iii. Easy to clean

- iv. Safety
- v. Cost
- vi. After-sales service

Si No.	Factor	Description
i.	<b>Need</b>	Do not purchase an equipment because others have it or it is cheap. Buy only if you need it.
ii.	<b>Time, money and energy saving</b>	When you are buying an item, see that it is useful to you in terms of saving your time and energy as well as your money. Ex: Pressure Cooker
iii.	<b>Easy to clean</b>	The equipments bought should be made of good material which is easy to wash, clean and maintain Ex: A toaster with a removable crumb tray is easy to clean.
iv.	<b>Safety</b>	Buy only Standardized Products (which have standard marks such as ISI, FPO, AGMARK etc)
v.	<b>Cost</b>	Do the market survey, and buy the best model that is available for the money you pay.
vi.	<b>After-sales service</b>	Before buying the product, Always ensure that seller promises to provide the necessary repair or maintenance support in a written format.