

Exercise

1. Mention one use of each of the following equipments.

- (a) Spirit lamp
- (b) Conical flask
- (c) Test tube
- (d) Evaporating dish
- (e) Wire gauze
- (f) Beaker
- (g) Mortar and pestle
- (h) Measuring cylinder
- (i) Glass stopper
- (j) Gas jar
- (k) Reagent shelf

Answers:

- (a) Spirit lamp - It is used to heat up substances.
- (b) Conical flask - It is used to hold sufficient quantities of liquid substances in form of solution.
- (c) Test tube - It is used to conduct tests with small quantities of chemicals for heating and boiling purposes.

(d) Evaporating dish - It is used for evaporating liquids.

(e) Wire gauze - It is used to keep glass apparatus (flask, beaker) on while heating is in progress. It is also used for uniform distribution of heat.

(f) Beaker: It is used for keeping of solutions.

(g) Mortar and pestle - It is used to crush or grind solid substances into powder.

(h) Measuring cylinder - It is used to measure the volume of liquid substances.

(i) Glass tube is used to transfer fluids or gases from one vessel to another.

(j) Gas jar is used for collecting gases and holding them in captivity vacuum.

(k) Reagent bottle is used for storing chemicals.

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(a)

(b)

(c)

(d)

(e)

(a)

(b)

(c)

(d)

(e)

2. From what materials are the following made up of?

(a) Test tube - Wood or plastic

(b) Measuring cylinder -
Test tube holder

(c) Measuring cylinder -

(d) Wire gauze -

(e) Mortar and pestle -

Answers

(a) Test tube rack is made up of wood or plastic.

(b) Test tube holder is made up of a iron clamp and wood or plastic to hold the other end.

(c) Measuring cylinder is made of glass.

(d) Wire gauze is made of meshed iron wire and a thin asbestos sheet that is fixed at the centre.

(e) Mortar and pestle is made of porcelain.

3. List any five precautions taken while performing an experiment in the chemistry laboratory.

Ans - 1. Do not touch or taste any unknown substance.

2. Use only small quantity of chemical to carry out an experiment.

3. Do not work alone in the laboratory.

4. Do not throw hot concentrated acid directly to the sink.

5. Always wear an apron in the laboratory to protect your clothes.

4. Answer in brief.

(i) Why is chemistry known as experimental science?

Ans = Chemistry is known as experimental science as experiment is performed under controlled conditions in an activity and we use the natural phenomenon.

(ii) Most of the laboratory apparatus are made up of glass why?

Ans = 1. Glass

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4. Glass

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5. Pyre

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Ans: 1. Glass is easy to clean.

2. Glass is a transparent material and we can see through it clearly.

3. It does not react with most of the chemicals.

4. Glass with stand high temperature.

5. Pyrex glass and borosil glass is a special type of glass which hardly expands on heating. Such glasses do not break even at high temperature.

Q. 5. Label the marked equipments in the diagram below.

