

Chemistry



OBJECTIVE TYPE QUESTIONS

Fill in the blanks:

- (a) Experiment and observation are the two important basics of chemistry.
 - (b) A porcelain dish is used for evaporation.
 - (c) A test tube holder is used to hold the test tube while it is hot or being heated.
 - (d) Mortar & Pestle is used for grinding and crushing solid substances into a powder.
 - (e) Glass apparatus is made of glass or pyrex glass.
2. Match the items in Column A with their respective functions in Column B.

Column A

Column B

- | | |
|----------------|---------------------------|
| (a) Iron stand | (i) To boil chemicals |
| (b) Test tube | (ii) To keep solutions |
| (c) Funnel | (iii) To stir solutions |
| (d) Beaker | (iv) To support apparatus |
| (e) Glass rod | (v) To transfer liquids |

3. Choose the correct alternative from the options given for each of the following statements.

- (a) Evaporating dish is made of
 (i) Porcelain
 (ii) Glass
 (iii) metal
 (iv) plastic
- (b) Spirit lamp is made of
 (i) glass
 (ii) brass

- (iii) steel
- (c) The apparatus to measure an accurate volume of a liquid is.
 - (i) beaker
 - (ii) Conical flask
 - (iii) measuring cylinder
 - (iv) Test tube
 - (v) all of the above
- (d) To pass a gas from one vessel to another, you will use
 - (i) gas jar
 - (ii) delivery tube
 - (iii) glass rod
 - (iv) test tube
 - (v) watch glass
 - (vi) crucible
 - (vii) beaker
 - (viii) round bottom flask
- (e) To prevent the escape of a gas from a gas jar, you will use its mouth ^{cover with}
 - (i) watch glass
 - (ii) crucible
 - (iii) beaker
 - (iv) round bottom flask

4. Write true or false against the following statements and correct the false ones.

- (a) A glass funnel is used to pour of liquids. True
- (b) A test tube is used to test liquid chemicals. False
 Correct: A test tube is used to test chemicals and for heating and boiling purposes.
- (c) A mortar and pestle is used for evaporation. False
 Correct: Mortar and pestle is used to grind and crush solid substances into a powder.
- (d) A glass rod is used to stir solutions. True
- (e) A round-bottom flask is used to store chemicals. False
 Correct: Used to do experiments and hold sufficient solutions.

Exercises

- (a) Sprit lamp is used to heat up substances.
- (b) Test tube is used to conduct tests with small quantities of chemicals for heating and boiling purposes.
- (c) Conical flask to hold sufficient quantities of substances in the form of solutions.
- (d) Evaporating dish is used for evaporating liquids.
- (e) Wire gauze 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 is used for keeping of solutions.
- (g) Mortar and pestle is used to grind and crush solid substances into a powder.
- (h) Measuring cylinder is used to measure the volume of (mainly) 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.
2. (a) Test tube rack is made up of wood or plastic.
- (b) Test tube holder is made up of a iron clamp at front and wood or plastic handle at 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 its centre.

(c) Mortar and pestle is made of porcelain.

3. Ans Five precautions to be taken in laboratory work:

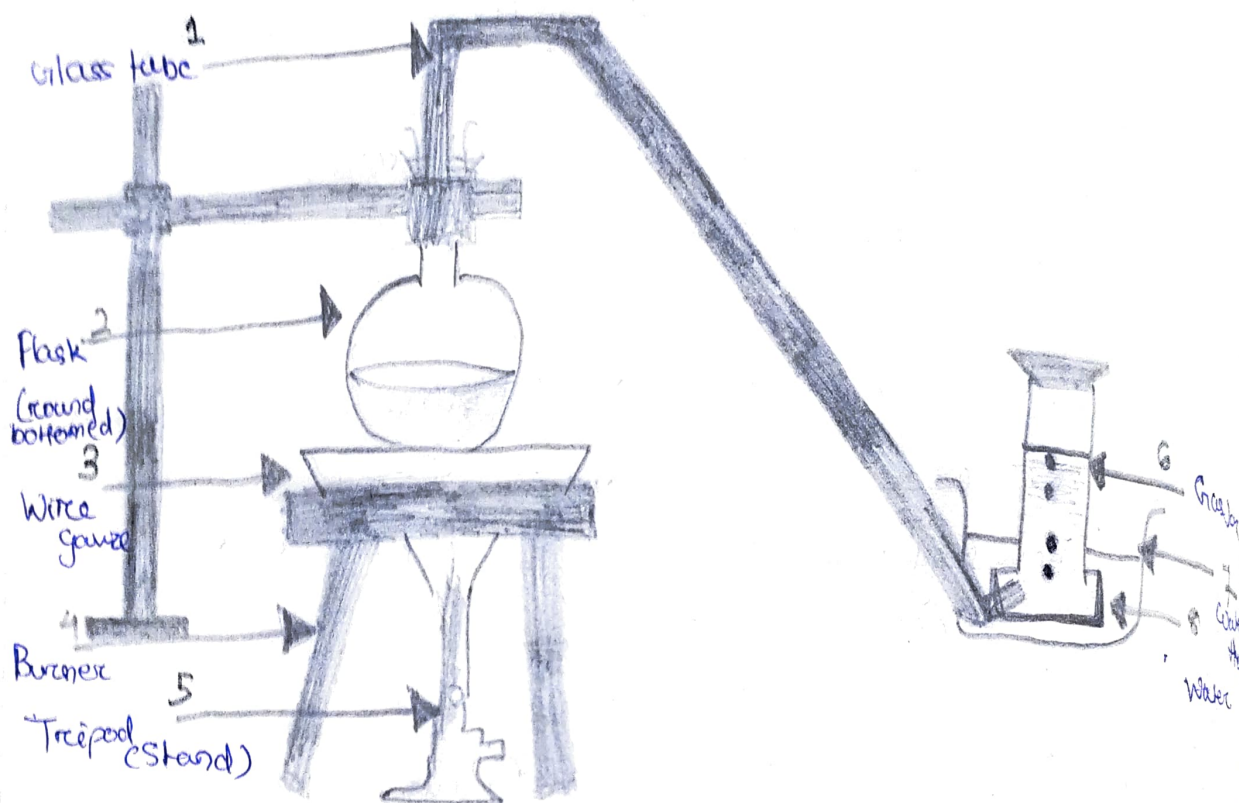
1. Do not touch or taste any unknown substances.
2. Use only small quantity of chemicals to carry out experiment.
3. Do not work alone in the laboratory.
4. Do not throw hot concentrated acids into the sink directly.
5. Always wear an apron in the laboratory to protect your clothes.
6. While heating keep the mouth of test tube away from your eyes and face.
7. The apparatus to be used in an experiment should be arranged neatly before beginning an experiment.
8. Do not throw broken glass apparatus or used filter paper in the sink. Throw them in a dustbin.

4. (a) Chemistry is known as experimental science as an experiment is performed under controlled conditions in an activity and we observe a natural or an artificially created phenomenon.

(b) Most of the laboratory apparatus is made of glass because:

1. glass is easy to clean
2. Glass is transparent material and we can see through it clearly.
3. It does not react with most of the chemicals used in experiments.

5.



COMMON LABORATORY APPARATUS AND EQUIPMENTS

4. Glass with stands high temperatures.

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