

CW  
29.6.21

# COMMON LABORATORY APPARATUS AND EQUIPMENTS EXERCISE

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1. Mention one use of each of the following equipments:
  - a) Spirit lamp: is used to heat up substances
  - b) Test tube: is used to conduct tests with small amount of substances in the form of solution for heating and boiling purposes.
  - c) Conical flask: to hold sufficient quantities of substance in form of solution.
  - 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 pow.
- 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. Glass jar: is used for collecting gases and holding them in captivity, vacuum.
- k. Reagent bottle: is used for storing chemical.

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

- a) Test tube tuck - 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
- e) mortar and pestle is made of porcelain

Q3. List five precautions to be taken while performing an experiment in a Chemical laboratory.

Ans. 5 precautions to be taken in laboratory are :

and taste.

- 1) Do not touch unknown substances
- 2) Use only small quantity of chemicals to carry out experiments.
- 3) Do not work alone in laboratory
- 4) Do not throw hot concentrated acids into sink directly.
- 5) Always wear an apron in laboratory.

ary to protect your clothes.

3)

4. Answer the following questions briefly:

a) Why Chemistry known as Experimental Science?

Ans. Chemistry is known as experimental science as an experiment is performed under controlled conditions in a laboratory and we observe a natural or an artificially created phenomenon.

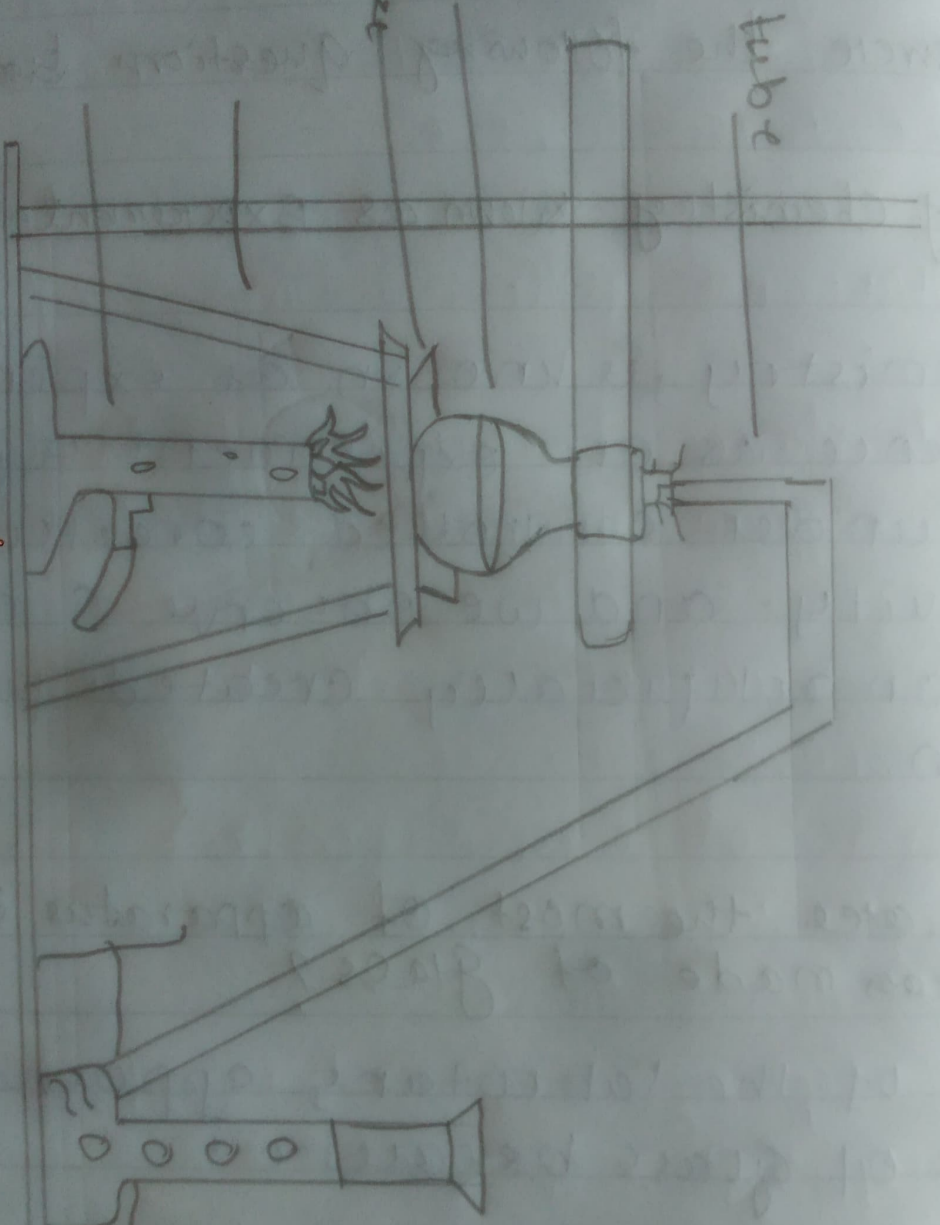
b) Why are the most of apparatus ~~in the lab~~ made of glass?

Ans. 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 to most of the chemicals used for experiments.
- A. Glass withstand high temperature.

Q5 Diagram

Delivery tube  
Flask  
Wire gauze  
Stand  
Burner



Gas jar  
Water trough  
Water

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

Q5. Label the ~~diagram~~ equipments and apparatus in the diagram.

- ans<sup>1)</sup>
- 1) Glass tube (delivery tube)
  - 2) Flask (round bottomed)
  - 3) Wire gauze
  - 4) Burner
  - 5) Tripod (stand)
  - 6) Gas jar
  - 7) Water trough
  - 8) Water.

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~~Patna~~  
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