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MLT4TH

Q1: What is microscope? And also explain principle of microscope?

ANS:

MICROSCOPE:

The word microscope is derived from the fusion of two greed words micro mean small and SKOPIEN mean to see.

Microscope is optical instrument that use a lens to produce high magnified image of small objects that cannot be seen by naked eyes.

PRINCIPLE:

1: Magnification: Used to enlarge the image.

2: Resolution: The shortest distance between two points on a specimen that can still be distinguished by the observer.

3: Contrast: to produce the details visible to eye.

Q2: Describe chromatography and also its phases?

ANS:

Chromatography: it is a technique for the separation of a mixture by passing it in a solution in which components moves in different rates.

PHASES OF CHROMATOGRAPHY

1: Mobile phase: The mobile phase move through the chromatography where it interacts with the stationary phase and it is separated.

2: Stationary phase: A layer or coating on the supporting medium that interacts with the ANALYTES.

Q3: Write down the applications of FLAMEPHOTOMETERY?

ANS:

APPLICATIONS OF FLAMEPHOTOMETERY:

Use to determine the concentration of potassium and sodium ions in infusion solution, such as NACL solution, ringer solution. Indirect quality testing of various substance over sodium lithium and potassium.

Q4: Explain the components of centrifuge?

 ANS:

1: Rotator: head of centrifuge used for rotation.

2: Drive shaft: function of shaft is to transmit the input power.

3: Motor: provides power to turn on the rotator.

4: Hanging buckets: used to hang tube.

5: Power switch: used to turn on the centrifuge.

6: Timer: revolution per minutes.

7: Tachometer: Speed high or low.

8: Brake: used to stop the process.

Q5: Write a note on water bath?

ANS:

WATER BATH:

> It is a device use in laboratories to incubate sample in water maintained at a constant temperature.

> Permits the occurrence of period constant temperature.

> Available in range of capacities from 2 liters to 28 liters.

> Also prevents excessive evaporation.

Components:

>Vessel

>Electric element

>Thermometer

>Propeller

>Thermostat

Q6: Explain the types of centrifuge?

ANS:

Small bench centrifuge:

This type of centrifuge is used to collect small amount of material that rapidly sediment like erythrocytes and yeast cells.

Large capacity refrigerated centrifuge:

This has the capacity of change rotor chambers with varying sizes.

Ultra capacity:

This type of centrifuge is used for the separation of particles according to densities.

Analytical centrifuge:

It is a very high speed spinning used in molecular biology.