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QUESTION no:1

ANSWER

Microscope…

The word microscope is derived from two greek word:

Micro which means small and scope means to see .so microscope is a device through which we see a small object which we cannot seen through necked eyes

OR

Microscope is a instrument used to see very small things that cannot seen with necked eyes

PRINCIPLES..

1. RESOLUTION

To separate the detail of two images

The ability to show closely adjacent structural detail as separate

1. MAGNIFICATION

To separate the detail of two images

1. CONTRAST

Defference in intensity between two objects

OR

Defference between image and background intensity to produce the detail visible to eye

QUESTION no:2

ANSWER ..

Chematography is derived from greek word.

Chroma means colour and graphy means to trace or plot

In 19th century Dr Mikhail tswett developed a system similar to paper chematography

Chematography is a laboratory technique used for the separation of a mixture of chemical substances ,the mixture closely related compound may include protein amino acid lipids vitamins and drugs .this technique was first primerly used for the separtation of plant pigments such as chlorophyll

PHASES OF CHEMATOGRAPHY

It consist may include

1. Mobile phas:
2. Stationary phase:
3. Mobile phase:

Mobile phase are also called gas chematography in which solvent carries the analyte sample .mobile phase are liquid phase flowing over the surface of the stationary phase may be gas or liquid

1. Stationary phase

Stationary phase may be a solid or liquid supported as a thin film on the surface of iner solid through which the sample contained in mobile phase .and it is a static phase which does,not moving

QUESTION no:3

ANSWER

APPLICATION OF FLAMPHOTOMETERY

1. Flamphotometery can be used to identified the quantitative estimation of certain metals ion such as sodium,lithium,calcium etc.
2. In baverages industries soft drink and fruit juice can be analysis by using flamphotometery.
3. This technique are also applied foe soil analysis to cheek the fertilization requirements
4. In food industries monitoring compliance with sodium and potassium limits in food
5. Also determine the labartory measurement of alkali and alkali earth metals
6. In cement industries review of sodium potassium content in the construction of cement industries
7. It also used in chemical industry for inbounded inspection of chemicals product ,determination and concentration of sodium and potassium .

QUESTION no:4

ANSWER

DEFINITION:

A centrifuge is a instrument used for to separate fluids from solution ,according to their shape ,size ,density,and concentration of a medium speed

COMPONENTS OF CENTRIFUGE

1. Rotor..

The rotor is the head of centrifuge which is a moving part,the rotor have lid to prevent sample from flying

1. Drive sharft..

The function of sharft in centrifuge pump is to transmit the input power

1. Motor..

Provide the power to turn rotor

1. Hanging bucket..

To hanhge the tube

1. Power switch..

The switch is desighnd to activate to activate and deactivate as functional to rotational speed of a sharft.

1. Timer..

Resolution per minute control

1. Brake..
2. Tachometer..

Tachometer is used to measure the rotation speed of an object

QUESTION no:5

ANSWER..

WATER BATH..

The waterbath is a instrument used in the labortries that maintain water constant temperature and it interface to allow user to set a desired temperature up to 100C

A water bath has evolved from a simple heated vessel to in instrument ,its available in range of capacities from 2 liter to 28 litters .the 2 litter are in small level and the 28 litters are usually used in the blood bank it also prevent excessive evaporation of fluid being heated

USES..

* Water bath is used in medical labortries to incubate specimen and kept it at a temperature
* It also used for coagulation test .eg,PT,APTT, amnd clotting factores etc
* Chemistry test cholesterol region ,renal profile test through incubater in water bath
* Immunology test,serum related test

COMPONENTS..

1. Vessel or trough of insulated metals (usually made up of stainless stell with or without an insulated lid
2. Propeller or stirrer to heat the water to tough in order to maintain a uniform temperature
3. Electric element used for to heat the water contain in the trough
4. Thermometer used for to cheek the temperature
5. Thermostate to maintain the temperature at a constant level

QUESTION no:6

ANSWER

TYPES OF CENTRIFUGE..

There are multiple types of centrifuge generally divide into three catagries..

1. Small bench centrifuge which have low speed maximum speed of 4000\_5000 RPM
2. Large capacity refrigerated centrifuge and ultracentrifuge are used for separating particals according to densities ultra centrifuge have maximum speed of 65,000RPM to100,000 s,xg
3. Analytical centrifuge have very high speed spinning used in molecular biology for DNA and RNA separating .the speed of analytical centrifuge has maximum speed 15,000 to 20,000RPM

TYPES BY ROTOR DESIGHN

1. Fixed angle rotor

Rotor body set at fixed angle between 14 to 14 C to vertical

1. Swimming bucket rotor

Vertical position at rest during acceleration of rotor swingout horizontal

1. Vertical tubr rotor

Tubes are fixed vertically in the body rotors at all time parallel position..