

Basic Separation Techniques

Sr	Questions	Answers Choice
1	Distillation separates liquids based on differences in	A. Density B. Colour C. Boiling point D. Solubility
2	Crystallization, the crystals form due to.	A. Freezing of water B. Cooling of a hot saturated solution C. Evaporation at room temperature D. Boiling at low pressure
3	The good insoluble preception which should be used for solutions that react with paper	A. Filter paper B. Do not filter C. Asbestos mat D. Cannot be answered
4	The comparative rates at which the solutes move in paper chromatography depend on	A. Size of filter paper B. Rf value of solutes C. Temperature D. Size of the chromatographic jar
5	Which of the following is the main purpose of separation techniques.	A. Mixing substances B. Purifying substances C. Heating substances D. Cooling substances
6	In petroleum refining fractional distillation separates fractions based on	A. Melting point B. Boiling point C. Density D. Viscosity
7	Evaporation can be used to separate	A. Salt from seawater B. Oil from water C. Sand from gravel D. Alcohol from water
8	In water treatment plants, filtration usually follows.	A. Sedimentation B. Distillation C. Sublimation D. Chromatography
9	The key difference between simple distillation and fractional distillation is the presence of.	A. Condenser with a larger surface area B. More powerful heat source C. Fractionating column D. Vacuum pump
10	Paper chromatography is often used to separate.	A. Salt from water B. Pigments in ink C. Petrol from kerosene D. Nitrogen from air
11	Which of the following can be used to check the purity of a substance.	A. Crystallization B. Quantitative analysis C. Filter paper D. Chromatography
12	In paper chromatography mobile phase is	A. Organic liquid B. Water C. Inorganic liquid D. All of these
13	In paper chromatography the stationary phase is.	A. Solvent B. Paper C. Ink D. Air
14	Which one is NOT an example of filtration.	A. Separating tea leaves from tea B. Purifying drinking water C. Separating petrol from diesel D. Removing dust from air in vacuum cleaners
15	Aspirin is used as	A. Analgesic B. Antipyretic C. Antiseptic D. Antacid

C. Both a and b

D. None of these

16 Rf value in chromatography is;

- A. Ratio of distance moved by solvent to sample
- B. Ratio of distance moved by sample to solvent front
- C. distance moved by paper
- D. Distance moved by baseline

17 The essential requirement for separating two liquids by simple distillation is that their boiling points should differ by at least

- A. 5 oC
- B. 10 oC
- C. 25 oC
- D. 50 oC

18 In paper chromatography amino acids can be located by

- A. Aspirin
- B. Ninhydrin
- C. salicylic acid
- D. KMnO4

19 The method that can be used to separate two solid compound with different solubilities in a solvent is

- A. Distillation
- B. Isolation
- C. crystallization
- D. Filtration

20 In chromatography, a locating agent is used to.

- A. Dissolve the sample for separation
- B. Carry the separated components along the stationary phase
- C. make colorless separated components visible for identification
- D. Prevent the sample from interacting with the stationary phase