

Chapter No. 2

EXPERIMENTAL TECHNIQUES IN CHEMISTRY

MCQs

- Q.1 Science of the chemical characterization is stand under the heading of
- (a) industrial chemistry (b) experimental chemistry
(c) analytical chemistry (d) physical chemistry
- Q.2 Several types of filter media are used for filtration depending on
- (a) nature of reaction (b) nature of reactants
(c) nature of precipitate (d) nature of filter paper
- Q.3 Filtration by a glass funnel and filter paper is very
- (a) time consuming (b) difficult
(c) fast (d) accurate
- Q.4 Date of filtration through conical funnel can be considerably increased by using
- (a) fine filter paper (b) ordinary filter paper
(c) fluted filter (d) under suction crucible
- Q.5 Gooch crucible is used to filter the solution of
- (a) $K_2Cr_2O_7$ (b) $KMnO_4$
(c) KOH (d) under suction crucible
- Q.6 Basic principles of crystallization is that solute should be soluble in a suitable solution at
- (a) freezing temperature (b) room temperature
(c) high temperature (d) low temperature
- Q.7 Premature crystallization of solution of filter paper or in funnel can be avoided
- (a) filtering hot saturated solution using hot funnel
(b) filling warm solution
(c) quick filtration
(d) filtering cold solution
- Q.8 Safe and reliable method of drying crystal in through
- (a) pressing it between folds of filter paper

- (b) drying it in oven
(c) evaporation of solution
(d) vacuum desiccator
- Q.9 In solvent extraction solute can be separated from solution by shaking the solution with solvent which the solute is
- (a) more soluble (b) partially soluble
(c) insoluble (d) soluble at high temperature
- Q.10 Repeated extraction using small portions of solvent are more
- (a) accurate (b) efficient
(c) slow (d) rapid
- Q.11 To achieve a good separation the two liquids are gently shaken to increase their area of
- (a) miscibility (b) separation
(c) contact (d) solubility
- Q.12 Chromatography in which stationary phase is solid is called
- (a) partition chromatography
(b) paper chromatography
(c) high pressure
(d) adsorption chromatography
- Q.13 Chromatography involves these distribution of a solution between
- (a) two stationary phase
(b) two mobile phase
(c) a stationary phase and a mobile phase
(d) two stationary and two mobile phase
- Q.14 Chromatography in which the stationary phase is liquid is called
- (a) partition chromatography
(b) descending chromatography
(c) column chromatography
(d) Adsorption chromatography
- Q.15 In paper chromatography the rate at which solutes move depends on
- (a) distribution law (b) distribution coefficients
(c) law of partial pressure (d) law of specific proportion
- Q.16 Solvent extraction is an equilibrium process and it is controlled by
- (a) law of mass action (b) the amount of solvent used
(c) distribution law (d) the amount of solute

- Q.17 The comparative rates at which the solutes move in paper chromatography depend on
- (a) the size of paper used
 - (b) R_f values of solutes
 - (c) temperature of the experiment
 - (d) size of the chromatographic tank used
- Q.18 A filtration process could be very time consuming if it were not aided by the gentle suction, which is developed
- (a) if the paper covers the funnel up to its circumference
 - (b) if the paper has got small sized pores in it
 - (c) if the stem of the funnel is large so that it dips into the filtrate
 - (d) if the paper fits tightly
- Q.19 Solvent extraction method is particularly useful technique for separation, when product to be separated is
- (a) non-volatile or thermally unstable
 - (b) volatile or thermally stable
 - (c) non volatile or thermally stable
 - (d) non-volatile or thermally unstable
- Q.20 During the process of crystallization, the hot saturated solution
- (a) is cooled very slowly to get large sized crystals
 - (b) is cooled at a moderate rate to get medium sized crystals
 - (c) is evaporated to get the pure crystals of the product
 - (d) is mixed with an immiscible liquid, to get the pure crystals of the product
- Q.21 Aqueous solution of iodine is prepared first by dissolving which compound in water
- | | |
|---------|----------|
| (a) KBr | (b) KI |
| (c) KCl | (d) NaCl |
- Q.22 The meaning of chromatosis
- | | |
|--------------------|----------------------|
| (a) colour writing | (b) colour writing |
| (c) colour forming | (d) colour spreading |
- Q.23 Which is not common way of carrying chromatography
- | | |
|---------------------|---------------------------|
| (a) ascending | (b) descending |
| (c) radial/circular | (d) spreading irregularly |
- Q.24 In paper chromatography the stationary phase is
- | | |
|----------------------|-----------------------|
| (a) water | (b) organic liquid |
| (c) inorganic liquid | (d) none of the above |
- Q.25 In paper chromatography the mobile phase is

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- (a) organic liquid (b) water
(c) inorganic liquid (d) none of the above

ANSWERS

Questions	1	2	3	4	5
Answers	c	c	a	c	b
Questions	6	7	8	9	10
Answers	c	a	d	a	b
Questions	11	12	13	14	15
Answers	c	d	c	a	b
Questions	16	17	18	19	20
Answers	c	b	d	d	b
Questions	21	22	23	24	25
Answers	b	a	d	a	a