

MCQ On Thin Layer Chromatography

1. *The eluant filled in the closed jar is _____*

- a) Mixture of gases
- b) Mixture of a liquid and a gas
- c) Mixture of solids
- d) Mixture of liquids

Answer: d

2. *Select the incorrect statement from the following options.*

- a) The spots of colorless compounds are invisible to the eyes
- b) These spots can be detected by putting the plate under ultraviolet light
- c) These spots can be detected by placing the plate in a covered jar containing iodine crystals
- d) None of the mentioned

Answer: d

3. *The relative adsorption of each component of the mixture is expressed in terms of its*

- a) Acceleration factor
- b) Retardation factor
- c) Both acceleration and retardation factor
- d) None of the mentioned

Answer: b

4. *Select the correct statement from the following.*

- a) Paper chromatography is a type of partition chromatography
- b) A special quality paper is used in paper chromatography
- c) Chromatography paper contains water trapped in it, which acts as stationary phase
- d) All of the mentioned

Answer: d

5. *Amino acids detected by spraying the plate with ninhydrin solution is an example of*

- a) Column chromatography
- b) Thin layer chromatography
- c) Paper chromatography
- d) Liquid chromatography

Answer: c

6. Retardation factor is the ratio of _____

- a) Distance moved by substance from base line to distance moved by the solvent from base line
- b) Distance moved by solvent from base line to distance moved by the substance from base line
- c) Distance moved by substance from top line to distance moved by the solvent from top line
- d) Distance moved by solvent from top line to distance moved by the substance from top line

Answer: a

7. The principle on which thin layer chromatography is based is that the _____

- a) Different compounds are absorbed on an adsorbent to different degrees
- b) Different compounds are absorbed on an adsorbent to same degrees
- c) Different compounds are adsorbed on an adsorbent to different degrees
- d) Different compounds are absorbed on an adsorbent to same degrees

Answer: c

8. The size of a thin layer of adsorbent is about _____

- a) 0.1 mm
- b) 0.2 mm
- c) 0.3 mm
- d) 0.4 mm

Answer: b

9. The chromatoplate or thin layer chromatography plate is made up of _____

- a) Glass
- b) Wood
- c) Fibre
- d) Metal

Answer: a

10. Which is not TLC development?

- A. Sandwich method
- B. Horizontal
- C. Two dimensional
- D. Column

Answer: d

11. Which is not an application of TLC?

- A. TLC can be successfully used for isolation of vitamin like A, D, and E using silica gel.
- B. Identification of drug.

- C. Neomycin sulphate can be isolating on activated compound.
- D. To determination of moisture.

Answer: d

12. In Iodine chamber, which colour spot are seen?

- A. Red colour.
- B. Brown colour.
- C. Yellow colour
- D. Green colour

Answer: b

13. Half plate size is

- A. 20×10 cm
- B. 10× 10 cm
- C. 20× 20 cm
- D. 5×5 cm

Answer: a

14. Which method are used for suspension spraying?

- A. Pouring
- B. Dipping
- C. Spraying
- D. Spreading

Answer: c

15. Capillary diameter is

- A. 5 mm
- B. 6 mm
- C. 7 mm
- D. 10 mm

Answer: a

16. Which temperature is required for activation of plate ?

- A. 110-120 C°
- B. 120-130 C°
- C. 130-149 C°
- D. 150-160 C°

Answer: b

17. Which is not Requirement of mobile phase?

- A. It should be not toxic.
- B. It should be easily available.
- C. It should be chemically inert.
- D. It should be chemically active.

Answer: d

18. How many time is required to dry TLC plate?

- A. 15 minutes
- B. 30 minutes
- C. 10 minutes
- D. 7 minutes

Answer: b

19. In quantitative T.L.C radioactive material can be studied by (GATE 1997)

- A. Visual comparison
- B. Gravimetry
- C. Densitometer
- D. Ginger counter

Answer: d

20. The stationary phase in thin layer chromatography is: - (Gate1993)

- A. Liquid held between glass
- B. Glass plate
- C. Silica gel
- D. None of the above

Answer: c

21. In TLC, initially the sample is

- A. In contact with mobile phase
- B. Not in contact with mobile phase
- C. Coated at the level of mobile phase
- D. Coated below the level of mobile phase

Answer: b

22. What is the principle of TLC?

- A. Partition
- B. Absorption

- C. Adsorption
- D. A and B

Answer: c

23. Which sentence is false about TLC?

- A. It is very sample method
- B. It is less time consuming.
- C. Applied to allow type of sample.
- D. It is very costly.

Answer: d

24. Which is not factor for choosing adsorbent?

- A. Nature of the adsorbent
- B. Solubility of the adsorbent
- C. Chemical nature
- D. Temperature.

Answer: d

25. The m.p. is flow by

- A. Capillary action
- B. Partition coefficient
- C. Temperature
- D. All of the above

Answer: a

26. The components with more affinity towards the stationary phases is

- A. Travels slow
- B. Travels fast
- C. A and B
- D. None of the above

Answer: a

27. The components with less affinity towards the stationary phases is

- A. Travels slow
- B. Travels fast
- C. A and B
- D. None of the above

Answer: b

28. Chromatography is a physical method that is used to separate and analyse _____

- A. Simple mixtures
- B. Complex mixtures
- C. Viscous mixtures
- D. Metals

Answer: b

29. In chromatography, the stationary phase can be _____ supported on a solid.

- A. Solid or liquid
- B. Liquid or gas
- C. Solid only
- D. Liquid only

Answer: a

30. In chromatography, which of the following can the mobile phase be made of?

- A. Solid or liquid
- B. Liquid or gas
- C. Gas only
- D. Liquid only

Answer: b