

Test 6

Topic- HPLC

30 Marks

Date: 09-09-2020

Duration: 30 Minutes

Q.1 which of the following solvents is not commonly used in reversed-phase HPLC?

- A. hexane
- B. methanol
- C. acetonitrile
- D. Water

Q.2 As the sample is being separated in HPLC, the detector measures the concentration of each compound as it leaves the column, and the recorder produces a record of what the detector "sees". What is this record called?

- A. Baseline
- B. Chromatogram
- C. Peak
- D. Attenuation

Q.3 Which of the following is not a standard part of preventive maintenance for HPLC pumping systems?

- A. Replacing the seal
- B. Cleaning the check valves
- C. Flushing buffer from the head
- D. Replacing the piston

Q.4 Which of the following statements is false?

- A. C18 columns are not all equivalent
- B. Using a sinker frit eliminates the need to filter your mobile phase
- C. Mobile phase pH should be adjusted before adding organic solvent
- D. None of the above

Q.5 In the "Load" position, what is the sample loop connected to?

- A. Waste
- B. Pump
- C. Column
- D. Detector

Q.6 High pressure liquid chromatography can be performed only in columns.

- A. True
- B. False

Q.7 Which of the following is not true about solvent programming which is done in high performance liquid chromatography?

- A. It provides unequal bandwidths
- B. It provides fast overall separation
- C. It provides maximum resolution
- D. It provides maximum sensitivity

Q.8 In reversed-phase HPLC:

- A. a hydrophobic stationary phase is combined with a polar mobile phase.
- B. a hydrophilic stationary phase is combined with a polar mobile phase.
- C. a hydrophobic stationary phase is combined with a non-polar mobile phase.
- D. a hydrophilic stationary phase is combined with a non-polar mobile phase.

Q.9 HPLC stands for

- A. High Pressure Liquid Chromatography
- B. High Performance Liquid Chromatography
- C. both (a) and (b)
- D. Highly Placed Liquid Chromatography

Q.10 The eluent strength is a measure of

- A. solvent adsorption energy
- B. solvent absorption energy
- C. solvent diffusivity
- D. solvent mixing index

Q.11 HPLC methods include

- A. liquid/liquid (partition) chromatography
- B. liquid/solid (adsorption) chromatography
- C. ion exchange and size exclusion chromatography
- D. all of the above

Q.12 In normal phase HPLC, there is a

- A. non polar solvent/polar column
- B. polar solvent/non-polar column
- C. non polar solvent/non-polar column
- D. any of the above

Q.13 Which of the following(s) is/are the advantage of HPLC over traditional LPLC (low-pressure liquid chromatography)?

- A. Greater sensitivity and reusable columns
- B. Ideal for ionic species and large molecules
- C. Sample recovery
- D. All of the above

Q.14 The process of passing a mobile phase through a chromatography column is called which one of the following?

- A. Flushing
- B. Washing
- C. Elution
- D. Partitioning

Q.15 Degassing of the HPLC solvents is carried out essentially to

- A. Avoid bubble formation
- B. Remove gases formed during analysis
- C. Both(a) and (b)
- D. None of the above