

Que-1. Answer any 12 questions. Each question carries 1 mark [12]

1. What is Chromatography?
2. Define Retention time.
3. What is LOD?
4. State the difference between Instrumental and Classical Chromatography.
5. Full form HPLC.
6. GC is Applicable for _____
(a) Volatile compound (b) Non volatile compound
(c) a & b both (d) none of these
7. Types of Column used in GC.
8. What is accuracy?
9. In normal phase chromatography Mobile phase is _____
(a)-Polar (b) Non-polar (c) Acidic (d) none of these
10. PDA stands for _____
11. An isocratic system in HPLC one in which the temperature of the column
(a) Remains constant (b) increases
(c) Decreases (d) none of these
12. Give the formula of Resolution.

Que-2. Answer any five questions. Each question carries 4marks [20]

1. Explain non-ideal behavior of Chromatogram.
2. Derive the equation for theoretical plates.
3. Explain Precision, Sensitivity, Selectivity, LOQ.
4. Any two detectors of HPLC.
5. Applications of HPLC.
6. Advantages of GC.
7. Which gases are used as carrier gas in GC? Explain selecting criteria for carrier gas.

Que-3. Answer any four questions. Each question carries 7 marks [28]

1. Discuss all the validation parameters of method validation.
2. Explain Instrument of HPLC.
3. Types of GC – Column in detail.
4. Discuss about the relationship of capacity factor, selectivity factor & Column efficiency consult with optimization condition.
5. Types of Injectors used in HPLC.
6. Explain TCD and FID – detectors of GC in detail.