

Shivaji University, Kolhapur

Department of Agrochemicals & Pest Management

Sample Question Paper

1) Which of the following is not a feature of carrier gas used in gas chromatography?

- A) It must be chemically inert
- B) It should be suitable for the detector employed
- C) It should not be completely pure
- D) All above

Answer: D

2) Which of the following is not used for detection in GC?

- A) Infrared spectroscopy
- B) NMR
- C) Flame ionisation
- D) Electrical conductivity

Answer: B

3) Which of the following detectors give concentration-dependent signals?

- A) Electron-capture detector
- B) Thermal conductivity
- C) Infra-red detector
- D) All of these

Answer: D

4) Which of the following are not used as stationary phases in a GC column?

- A) Polysiloxanes
- B) Silica
- C) Cyclodextrins
- D) None

Answer: B

5) Which of the following is the disadvantage of gas chromatography?

- A) It is not a good method
- B) It cannot be used for qualitative analysis
- C) It cannot be used for separation of volatile components
- D) It does not provide direct identification

Answer: D

6) 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

Answer: D

7) An isocratic elution in HPLC is one in which the composition of the solvent

- A) Remains constant
- B) Changes in a series of steps
- C) changes continuously
- D) none of these

Answer: A

8) In reversed 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

Answer: B

9) Which can be used as a mobile phase in HPLC applications?

- A) Any compound with solubility in liquid
- B) Any compound with limited solubility in liquid
- C) Any compound with non-solubility in liquid
- D) Any of the above

Answer: A

10) 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

Answer: D

- 11) ----- bioassay method is maggots of some dipterans
A) Sandwich B) Fumigation
C) Dipping D) Topical application

Answer: C

- 12) Involvement of a single gene in the development of resistance is called
A) Monogenic resistance B) Polygenic resistance
C) Both a and b D) None of the above'

Answer: A

- 13) The insect jassids is walking ----- manner
A) Looping B) Hopping
C) Diagonally D) Creeping

Answer: C

- 14) Pheromone is secreted by ----- moth in lepidopteron insects
A) Male B) Female
C) Both a and b D) None of the above

Answer: B

- 15) Which of the following insect showing polymorphism?
A) House fly B) Mosquitoes
C) Shoot fly D) Termites

Answer: D

- 16) As part of hydrologic cycle precipitation replenishes both _____ and ground water.

- A) River water B) Lake water C) Both i & ii D) None

Answer: C

- 17) _____ cleans the atmosphere of air borne pesticide vapours and particles and deposits them to the earth's surface including Lakes Rivers and streams.

- A) Precipitation B) Deposition
C) Both D) None

Answer: A

- 18) Pesticide can reach _____ by infiltration through soil.

- A) Sea water B) Ground water C) River water D) None

Answer: B

19) _____ which was used on cotton in southern US and banned in 1982, is still being transported into great lakes region.

- A) DDT B) Dieldrin C) Taxaphene D) Lindane

Answer: C

20) Particle residue with size _____ will be get spread in atmosphere.

- A) $50\mu\text{m} - 0.2\mu\text{m}$ B) $10\mu\text{m} - 0.02\mu\text{m}$ C) $10\text{mm} - 0.2\text{mm}$ D) None

Answer: B