QUESTION BANK OF PHARMACEUTICAL ANALYSISIII [BOP- 475]

SHORT ANSWER QUESTION.

UNIT I

1 The range of wavelength h of U.V. visible spectrometer.

2-Define lambda max.

3 Law governs absorption in U.V. spectroscopy.

4 Detector used in U.V. spectrometer

5 Light source used in U.V. and visible spectroscopy.

6 Define auxochrome and chromophore with example.

7 Bathochromic shift and hypsochromic shift.

8 Which material Sample cell is made up of?

9 The value of lambda max for homoannular and hetroannular ring according to woodward-fieser rule.

10 Define beer -lambert law and give formula of beer lambert law.

11 Write the name of different transition used in U.V. spectrometer.

12 Give the example of π-π* transition and n-π transition.

13 Which transition has lowest energy in U.V. spectrometer?

14 Write the name of filter used in visible spectrometer.

15 Range of mid I.R.spectroscopy in (wave number cm^{-1})

16 Infrared spectroscopy provides valuable information about.

17 A strong signal at 1700 c m^{-1} in an IR spectrum indicates the presence of group.

18 A strong signal at 3400 c m^{-1} in an IR spectrum indicates the presence of group

19 Define scissoring. Rocking, wagging, and twisting.

20 Effect of hydrogen bonding in I.R. absorption.

21 Define Fermi resonance, coupled vibration. Asymmetrical stretching.

22 What is finger print region and functional group region?

23 How aldehyde and ketone Stretching differentiated from I.R.

24 Solvent used in I.R. Spectroscopy.

25 Detector used in I.R. Spectroscopy.

26 Which material Sample cell is made up in I.R.?

27 Sample handling technique used in I.R. Spectroscopy.

28 Light source used in I.R. Spectroscopy.

29- How can you differentiated acid from alcohol AND primary secondary amine and tertiary amine from I.R.?

30. Deviation from beer and lamberts law.

UNIT II

1-Define chemical shift. And unit of chemical shift.

2- What is shielding and deshielding.

3- The value of chemical shift is lies in between.

4-Write the name of internal standard used in NMR spectroscopy.

5- What is α spin state β spin state?

6-Define spin-spin coupling and spin-spin splitting.

7- Effect of electronegative atom in chemical shift.

8- Solvent used in N.M.R. Spectroscopy.

9- N.M.R and C-13 spectroscopy provides valuable information about.

10- Which nuclei show NMR spectroscopy?

11- What is processional frequency?

12- Define coupling constant. And gyromagnetic ration.

13. What is anisotropic effect, chemical equivalence proton and magnetically equivalence proton?

14- Unit of magnetic field and applied magnetics value and radiofrequency value in NMR

UNIT III

1 What is base peak?

2- What is parent peak?

3- What is (M+1) and (M+2) peak.

4-What is the different type of peak obtained in mass spectrometer.

5- How is mass and radius of ion path related?

6- What is the different type of ionization technique in mass spectrometer?

7-Define Mac. Leferty rearrangement.

8 Different technique of mass ionization. Which technique used for fragmentation of macromolecules.

9-What value of base peak of ethanol and benzaldehyde.

10 Which type of cleavage occurs during mass fragmentation?

11- Importance of metastable ion in mass spectroscopy

UNIT IV

1-What is singlet state, doublet and triplet state.

2-Difference between fluorescence and phosphorescence.

3-What is the use of primary and secondary filter.

4 What is quenching.

5- Which is the source of light in fluorimeter?

6- What is self-quenching? Give example.

7- Which is the source of light used in atomic absorption spectroscopy..

8- Flame photometer based on the principle of absorption/emission.

9- Which burner used in flame photometer.

10- Difference between atomic absorption spectroscopy and atomic emission spectroscopy.

11- Which combination used for obtained maximum temperature in flame.

12- Which of electron microscope which is used to study internal structure of cells is? (**TEM)**

13- Electrons of Scanning Electron Microscope are reflected through.(**metal plate)**

14- Object can be magnified under electron microscope about.(**300000 times**)

15- Scanning electron microscopy (SEM) is best used to study (**Surface Morphology**)

16- The technique used for the separation of charged molecules.

17- In gel electrophoresis DNA molecules migrates towards. (**ANODE)**

18- The most commonly gel used in gel electrophoresis.

19- Explain the term luminance.

20-SEM is done for nonliving object. T/F.

21- Part of SEM and TEM.

UNIT V

1- Define quality control.

2- Type of validation.

3- ISO stands for.

4- What is BMR and master formula record?

5-What is audit? AND their type