

Branch: M.Pharm (Pharmaceutics / Pharma.Chem. / Pharmacology) Sem.:- I

Subject with Subject Code:- Modern Pharmaceutical Analysis (MPA101T) Marks: 30

MODEL ANSWERS

- 1 a) Definition of chromophores and auxochromes --- 2*1 mark each
- 1 b) Enlist four merits 0.5 *4 mark each
- 1 c) As there is increase in the magnetic field strength, the two energy levels – originally degenerate – split, one increasing in energy and one decreasing in energy. This is known as the Zeeman effect. 1 mark
- Explanation 1 mark
- 1 d) Factors affecting fluorescence 1*2 = 2 marks
- i) intrinsic structure of molecule
- ii) Environment of molecule
- 1 e) Description of relaxation process 2 mark
- 1 f) Definition of Atomic Absorption spectroscopy 1 mark
- Description in short 1 mark
- 2 a) INSTRUMENT FOR FLAME EMISSION 1 mark
- 1-Flame atomizer
- 2- Monochromator
- 3- Detector
- 4- Readout meter. 4*1 mark each
- 2 b) Factors affecting chemical shift 5* 1mark each
- Electronegativity, Pi-electron induced fields, Positions from proton, highly shielded protons, Hydrogen bonded to hetero atoms.
- 2 c) Detail account of field effect 5 mark
- 3 a) Discussion of Factors affecting 2 mark

Coupled Vibrations

Fermi Resonance

Hydrogen bonding

Electronic fields

2*4 mark each

3 b) Any five applications in detail

2*5 mark