UG Odd Semester (CBCS) Exam., December—2016

PHARMACEUTICAL SCIENCE

(7th Semester)

Course No. : BPH–704 (C)

(Pharmaceutical Analysis–III)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Discuss in short about the instrumentation of UV-visible spectrophotometer. How will you calculate the $_{max}$ of , -unsaturated ketone? 8+7=15

2. Write in short about the basic principle of fluorometry. Explain the terms phosphorescence, fluorescence, quenching, singlet state and triplet state. Discuss about the instrumentation of a fluorimeter. 5+(1×5)+5=15

UNIT—II

3. Discuss in short about the sample preparation techniques for solid sample.What do you mean by the term fingerprint region? Why are they called so? Write down the application of infrared spectroscopy. 4+2+3+6=15

4. Write down the basic principle, instrumentation and application of flame photometry. 4+7+4=15

UNIT—III

5. Explain the term chemical shift. Write a note on the standard used in 1_{HNMR}. Explain the role of Boltzman distribution factor in 1_{HNMR}. Discuss in brief about shielding and deshielding of a nucleus in NMR. 2+4+3+6=15

6. Explain the term 'metastable ion'. How will you calculate the metastable ions? Discuss in detail about the instrumentation of mass spectrometer. 3+3+9=15

UNIT—IV

7. Write down the working principle of TLC. Discuss on the sample application on TLC. Discuss the development technique and application of paper chromatography. 3+4+8=15

8. Write down the basic principle, practical requirement and application of column chromatography. 3+7+5=15

UNIT—V

9. Write in detail about the working procedure of HPLC. Discuss about solvent degassing. 12+3=15

10. Write down the principle for separation and practical requirement in GLC. Write in short about the activation of HPTLC plates. 4+7+4=15

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