2017/EVEN/13/34/BPH–806 (C)/436

UG Even Semester (CBCS) Exam., May—2017

PHARMACEUTICAL SCIENCES

(8th Semester)

Course No. : BPH–806 (C)

(Advanced Pharmaceutical Analysis)

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. What are the different types of X-ray analysis? Discuss the theory, instrumentation and application of X-ray diffraction. Derive Bragg's law with pictorial notation. 3+7+5=15

2. Write notes on any *two* of the following : 7½×2=15

(a) Site exclusion chromatography

(b) Supercritical fluid chromatography

(c) Electron spin resonance spectroscopy

(d) Differential scanning colorimetry

UNIT—II

3. What is potentiometric titration? Write down the qualitative and quantitative analyses of phenobarbitone sodium and prednisolone. 3+12=15

4. *(a)* What do you mean by reverse-phase chromatography? Give an example. 3

(b) Write down the qualitative and quantitative analyses of any *two* of the following : 6×2=12

(i) Dexamethasone tablet

(ii) Mepyramine maleate tablet

(iii) Codeine syrup

(iv) Ergotamine injection

UNIT—III

5. Write a short note on the theory of UV-visible spectroscopy. How are chloramphenicol and riboflavin tablets analysed qualitatively and quantitatively? 5+10=15

6. Classify chromatographic techniques with examples. Discuss the qualitative and quantitative analyses of any *two* of the following : 3+(6×2)=15

(a) Rifampicin tablet

(b) Ampicillin powder

(c) Chlorpropamide tablet

(d) Sulphadiazine tablet

UNIT—IV

7. Explain in detail about the basic principle and procedure for estimation of Aspirin and Caffeine present in a dosage form. 7½+7½=15

8. Write down the basic principle behind for the estimation of digoxin and verapamil HCl. Write the procedure for estimation of these drugs as per IP-2007. (3+3)+(4½×2)=15

UNIT—V

9. Explain with suitable examples about estimation of drugs by oxidation followed by coupling. 15

10. Write notes on any *two* of the following : 7½×2=15

(a) Follin's reagent

(b) Paradimethylaminobenzaldehyde (PDAB)

(c) Gibbs reagent

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