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B. Pharm
PH. E13

Eighth Semester Examination – 2008

ADVANCED PHARMACEUTICAL ANALYSIS

Full Marks – 70

Time : 3 Hours

*Answer Question No. 1 which is compulsory
and any **five** from the rest.*

*The figures in the right-hand margin
indicate marks.*

1. Answer the following questions in brief :

2 × 10

- (a) Write the principle of supercritical fluid chromatography.
- (b) Write the applications of size exclusion chromatography.

- (c) What is the colorimetric method used for the assay of Vitamin A ?
- (d) Write the principle of ESR.
- (e) What are the limitations of ESR ?
- (f) What is the principle of X-ray fluorescence spectrometry ?
- (g) Write briefly about PDAC reagent.
- (h) What are the basic types of plastics used for closures ?
- (i) Explain the principle behind the colorimetric method of determination of Aspirin.
- (j) Mention the qualitative test for barbiturates.

2. (a) What is diffraction of X-rays ? 1
- (b) Derive Bragg's equation. 3
- (c) Discuss briefly the instrumentation and applications of X-ray diffraction method. 6

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Contd.

3. Describe the principle and procedure involved in using PDAB reagent in drug analysis with suitable examples. 10

4. (a) Explain the principle involved in diazotization. 5

(b) Describe the reagents used and procedure for the determination of sulfadiazine. 5

5. Explain the principle involved in the analysis of steroids. 10

6. (a) Describe the different types of glass and rubber containers used for different dosage forms. 8

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(b) Discuss hydrolytic resistance test for glass containers. 2

7. Describe the official quality control tests for parenteral products with their limits. 10

8. Explain the principle and procedure involved in the analysis of penicillins. 10

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