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2021

B.Pharm. 7th Semester (Repeater) Examination
Elective – ADVANCED PHARMACEUTICAL ANALYSIS
(Old Regulation)

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer question No. 1 and any six from the rest.

1. Answer the following : (10 × 1 = 10)
- (i) Separation of FPLC column is based on which of the following
- (a) Size exclusion chromatography
 - (b) Ion exchange chromatography
 - (c) Affinity Chromatography
 - (d) All the above
- (ii) What is the pH range in which strongly basic anion exchanger can be used?
- (a) 0-14
 - (b) 1-9
 - (c) 1-6
 - (d) 7-14
- (iii) Process materials shall be tested for which of the following
- (a) Only Quality
 - (b) Both quality and purity but not strength
 - (c) All quality, purity and strength
 - (d) None of the above

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- (iv) Gel electrophoresis comes under
- (a) moving boundary electrophoresis
 - (b) zone electrophoresis
 - (c) all of the above
 - (d) none of the above
- (v) OECD stands for:
- (a) Organization for ecosystem cooperation
 - (b) Organization for economic cooperation and development
 - (c) Organization for economic collaboration and development
 - (d) None of the above
- (vi) Which of the following chromatography is used for molecular weight determination of compounds?
- (a) Size exclusion chromatography
 - (b) Ion exchange chromatography
 - (c) Super critical fluid chromatography
 - (d) None of the above
- (vii) _____ is used as a closure for Injection containers.
- (viii) Sodium dodecyl sulphate (SDS) is used to _____.
- (ix) _____ is commonly used as super critical fluid in super critical fluid chromatography.
- (x) Internal pore volume is also known as _____.

2. Answer the following (any Three) (3 × 5 = 15)

- (a) Write the principle, procedure and application of Kjeldahl method with suitable diagram.
- (b) Write a note on oxygen flask combustion Gasometry.
- (c) Write a note on diazotization titration.
- (d) Explain the principle and instrumentation of Fast protein liquid chromatography.

3. Answer the following (Any Three) (3 × 5 = 15)

- (a) Define GLP and Write in Brief the Principle and elements of GLP.
- (b) Write the applications of FPLC.
- (c) Write a note on ion exchange chromatography.
- (d) Describe about the size exclusion column. What is absolute size exclusion chromatography?

4. Write a note on the principle and instrumentation of Super Critical Fluid Chromatography. Discuss the effect of pressure on it. (15)
5. (a) Write brief notes on : (8)
 - (i) WHO guidelines for personal hygiene and health
 - (ii) OECD guidelines(b) Gel electrophoresis with appropriate diagram. (7)
6. Describe in details the different methods of sampling of materials, sampling risks and sampling plans. (15)
7. Write the Principal and application of diazotization titration. Explain the Principal Instrumentation and application of Differential scanning calorimetry. (15)
8. What are IPQC Tests? Discuss The IPQC problems In pharmaceutical industries. (15)
9. Discuss the principal, instrumentation and different applications of Different thermal analysis. (15)
10. Write the principal, instrumentation and application of Size exclusion Chromatography. (15)