Roll No. | | | | | | | | | | | | | Total No. of Pages : 01

Total No. of Questions : 06

M.Pharmacy (Pharmaceutical Analysis) (Sem.–1)

ADVANCED PHARMACEUTICAL ANALYSIS

Subject Code : MPA-102T

M.Code : 74694

Time : 3 Hrs. Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of SIX questions.**
2. **Each question carries FIFTEEN marks.**

1. a) How PCR is applicable in gene regulation? Explain the working of a PCR instrument. 7

   b) Explain the biological assay methods for analysis of Rabies vaccine and Heparin Sodium IP. 8

2. a) How do you classify markers in herbal pharmaceuticals on the basis of their utility in stability testing program? Give examples. 6

   b) Explain varied types of interactions among different kinds of constituents in phytopharmaceuticals. How these are responsible for complexity and challenges in stability testing of such products? 9

3. What is the principle of immunoassays? Write a detailed account of various types of immunoassays with their specific applications. 15

4. a) Acelofenac is formulated in both tablets and syrup forms. The pH of the syrup is about 6. Predict the possible degradation products of acelofenac in both the forms. In which form it will be more stable? Support your answer with mechanistic explanations. 10

   b) What are various sources of residual solvents in drugs? How their presence can prove health hazardous? Give examples. 5

5. How an assay method is different from stability-indicating assay method (SAIM)? Explain a selective and specific SIAM with examples. Discuss various steps involved in development of a SIAM. 15

6. a) Classify different elemental impurities with examples. Discuss their potential sources. 5

   b) Write an account on photostability testing. 5

   c) Define the terms qualification and quantification limits. 5

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.