

Question Paper

Exam Date & Time: 28-Dec-2017 (09:30 AM - 12:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal University, Manipal MPharm Theory End-Semester Examinations.
MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- DECEMBER 2017 - JANUARY 2018
PROGRAM: MPHARM SEMESTER 1

DATE: 28/12/2017

TIME: 9:30AM - 12:30PM

Modern Pharmaceutical Analytical Techniques [PQA-MPL101T]

Marks: 50

Duration: 180 mins.

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

- 1) Write a note on columns used in Gas Chromatography. (5)
- 2) Differentiate between heat flux and power compensated DSC. (5)
- 3) Explain the quantitative methods in UV Visible spectroscopy in brief. (5)
- 4) List the problems of sample handling in IR spectroscopy. Explain the liquid and gas sample handling in brief. (5)
- 5) Discuss the paper electrophoresis techniques in brief. (5)
- 6) Explain the general methodology of ELISA and RIA. (5)
- 7) Explain coupling constant and reference standard in PNMR. (5)
- 8) Explain isotopic ion peaks in mass spectrometry. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

- 9) What is Rf value? List the factors that affect Rf value. (2)
 - A)
 - B) Derive Bragg's equation (2)
 - C) What is quenching of Fluorescence? List the factors affecting the same. (2)

- D) Explain the oxide formation interferences in flame photometry in brief. (2)
- E) What is chemical shift? Name the factors affecting on it (2)

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