

Exam Date & Time: 01-Dec-2018 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Date: 01-12-2018

(PQA-MPH101T/PQA-MIP101T/PQA-MPC101T/PQA-MPA101T/PQA-MPB101T/PQA-MPG101T
/PQA-MPL101T)

Modern Pharmaceutical Analytical Techniques [PQA-MQA101T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Write a note on pumps used in HPLC (10)
- 2) Explain the theory of UV-Visible spectroscopy. List the qualitative applications of UV-Visible spectroscopy (10)
- 3) Explain the radiation sources of IR spectrometer. Comment on IR of peaks of paracetamol and aspirin. (10)
- 4) Why does a signal for a particular set of protons is split into a multiplet? Discuss with suitable example (10)
- 5) Classify with example ionization techniques in mass spectrometry. Explain the principle of soft ionisation techniques. (10)

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Write a note on differential scanning calorimetry. (5)
- 7) Explain the principle and application of ion exchange chromatography. (5)
- 8) What is the role of excitation and emission filters in fluorimeter? Explain the interferences in flame photometry in brief. (5)
- 9) List the factors affecting electrophoresis. Write the applications of Radio immune assay (5)
- 10) Name indicator and reference electrodes in the acids-base, redox and complexometric potentiometric titrations. List requirements for the crystalline solid (5)

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11/27/2018, 8:42 PM