

Question Paper

Exam Date & Time: 08-May-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

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

MPharm - Pharmaceutical Chemistry Specialization

MPharm Semester II - End Semester Examination, May 2019

Date ; 08/05/2019

Pharmaceutical Process Chemistry [PCH-MPC204T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Discuss on the principles of process green chemistry (10)
- 2) Explain the mechanism of crystallization and add a note on basic crystal properties such as solubility, supersaturation, metastable zone and induction time (10)
- 3) Explain the various process design reasons for selection of solvent (10)
- 4) What are nitrating agents? Discuss the kinetics and mechanism of aromatic nitration. (10)
- 5) What are the characteristics of cost- effective routes? Explain in detail. (10)

SECTION - B

Answer all the questions.

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

- 6) What are the advantages and disadvantages of salt formation? Give a note on pharmaceutical and biological effects of salt form. (5)
- 7) What is MSDS? Explain in detail the contents and format of MSDS (5)
- 8) Classify fire with suitable examples. How will you prevent fire hazards? (5)
- 9) Explain catalytic hydrogenation reactions with examples. (5)
- 10) What are non-metallic oxidising agents? Explain. (5)

-----End-----