

ion Paper

Date & Time: 06-May-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.
Specialization: Industrial Pharmacy
MPharm Semester II - End Semester Examination May 2019
Date : 6/05/2019

Pharmaceutical Production Technology [PCE-MIP203T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Explain the principle and construction of Wurster Process with the help of diagram. (2 Marks + 8 Marks) (10)
- 2) (i) Explain the construction and working of rapid mixer granulator. (5 Marks) (10)
(ii) Discuss the coating process using Accela - Cota. (5 Marks)
- 3) Classify spray dryers. Explain any THREE types of atomization techniques used in spray dryers. (4 Marks + 6 Marks) (10)
- 4) Explain the sources of contamination in parenteral production with their preventive methods. (10)
- 5) Explain rotary die process for manufacture of soft gelatin capsules. (10)

SECTION - B

Answer all the questions.

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

- 6) Discuss the large-scale emulsification of immiscible liquid systems. (5)
- 7) Give layout of parenteral production unit. (5)
- 8) Write a note on glass as a packaging material. (5)
- 9) Enlist different grades of water. Explain two of them. (5)
- 10) Discuss the mechanism of air filtration systems. (5)

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