

Question Paper

Exam Date & Time: 26-Nov-2019 (09:30 AM - 12:30 PM)

**MANIPAL ACADEMY OF HIGHER EDUCATION**

Pharmaceutical Microbiology [PBT-BP303T]

Marks: 75

Duration: 180 mins.

II Long Answers Answer all

the questions.

- 1) What is saturated steam? Discuss the properties of saturated steam that makes it an ideal sterilizing agent. (10)
- 2) Describe the isolation, preservation and maintenance of a rare form of microorganism (10)

III Short Answers Answer all

the questions.

- 1) Enlist the factors influencing disinfection process and explain the effect of surfactants on activity of disinfectants (5)
- 2) Explain any five properties of an ideal disinfectant (5)
- 3) Define staining. Explain acid fast staining (5)
- 4) Explain the two level factorial assay by cup plate method of an antibiotic (5)
- 5) What is an aseptic room? Explain the design of such a room (5)
- 6) Write a note on assessment of microbial contamination and spoilage of Pharmaceutical products (5)
- 7) Describe the principle and application of electron microscopy (5)

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Question Paper

Exam Date & Time: 28-Nov-2019 (09:30 AM - 12:30 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

Physical Pharmaceutics I [PCE-BP302T - S3]

Marks: 75 Duration: 180 mins.

II Long Answers

Answer all the questions.

- 1) Define and derive Nernst's distribution law. (10)
- 2) Write short notes on dipole moment and aerosols. (10)

III Short Answers

Answer all the questions.

- 1) Explain the factors affecting surface tension. (5)
- 2) Explain the principle of surface tension by drop weight method. (5)
- 3) Discuss the kinetics of protein binding using Klotz double reciprocal plot. (5)
- 4) Write a note on the applications of chelates. (5)
- 5) What are eutectic mixtures? How to dispense them? (5)
- 6) Write short note on glass electrode used in pH meter with neat diagram. (5)
- 7) Write short notes on buffers in pharmaceutical preparations. (5)

Question Paper

Exam Date & Time: 30-Nov-2019 (09:30 AM - 12:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Pharmaceutical Organic Chemistry II [PCH-BP301T - S2]

Marks: 75

Duration: 180 mins.

II Long Answers

Answer all the questions.

- 1) Classify substituent groups and their effects on reactivity in electrophilic aromatic substitution. Give the structure and uses of saccharin, DDT and chloramine. (10)
- 2) Define Ester value and Acetyl value. Write the principle and the method involved in the determination of iodine value with equations. (10)

III Short Answers

Answer all the questions.

- 1) Write one method of synthesis of naphthalene and give three important reactions of diphenylmethane (5)
- 2) Explain angle strain and discuss Coulson and Moffitts modification (5)
- 3) What are the limitations of Baeyer's strain theory. Write two important reactions of cyclobutane. (5)
- 4) Give the structure and uses of morphine and menadione (5)
- 5) Discuss the effect of substituents on the acidity of Phenol. Give the structure and uses of cresol and resorcinol (5)
- 6) Explain the structure of benzene with neat diagrams (5)
- 7) What are the synthetic uses of aryl diazonium salts? Explain (5)

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