

Exam Date &amp; Time: 03-May-2018 (09:30 AM - 12:30 PM)



# MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES  
END SEMESTER THEORY EXAMINATIONS- MAY 2018

PROGRAM: BPHARM SEMESTER 2

DATE: 03/05/2018

TIME: 9:30 AM - 12:30 PM

Pathophysiology [PPR-BP204T]

Marking 75

Answer all the questions.

Duration: 180 mins.

- II Long Answers**
- 1) Explain lifecycle of malaria with neat diagram. (10)
  - 2) Explain different factors effecting atherosclerosis. (10)

### III Short Answers

Answer all the questions.

- 1) Classify Necrosis. Explain any two. (5)
- 2) Explain pathophysiology of COPD. (5)
- 3) Write a note on macrocytic anaemia. (5)
- 4) Enlist different complications of diabetes. (5)
- 5) Differentiate between benign and malignant tumour. (5)
- 6) Define Inflammation. Explain phagocytosis with a neat diagram. (5)
- 7) Explain pathophysiology of Parkinson's disease. (5)

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Exam Date & Time: 05-May-2018 (09:30 AM - 12:30 PM)

# MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES  
END SEMESTER THEORY EXAMINATIONS - MAY 2018

PROGRAM: BPHARM SEMESTER 2

DATE: 05/05/2018

TIME: 09:30 AM - 12:30 PM

Pharmaceutical Organic Chemistry-I [PCI]-BP2021  
salicylate

phthalate

Duration: 180 mins.

Marks: 75

### II Long Answers I Multiple Choice Questions (MCQs)

Answer all the questions.

- 1) 1a) Discuss with an example, along with mechanism, the electrophilic addition of conjugated dienes. 05 M
- 1b). Give any one reaction with an equation for the following mechanisms: 05 M (10)  
i) concerted reaction b) dehydration reaction
- 2) 2a). Give the mechanism and evidences for E2 reactions. 05 M
- 2b). Explain with mechanism - Cannizzarao mechanism. 05 M (10)

### III Short Answers

Answer all the questions.

- 1) 1. Draw the structures for the following IUPAC names. 1M x 5 = 5 M
- a) 2,4,4-Trimethylheptane b) 5-Bromo-2-Methyl-4-isopropylnonane (5)
- c) Allyl alcohol d) But-2-ene
- e) 1-Bromo-3-ethyl-5-methylcyclohexane
- 2) 2a). What is hybridization? Discuss the hybridization in alkanes. 3 M
- 2b). Why acetic acid is weaker than formic acid? 2 M (5)
- 3) Explain with reactions, the mechanism for the chlorination of cyclohexane. (5)
4. Define the following reactions with an example. (5)
- a) Diels-Alder reaction b) Markovnikov's rule of addition
- What is Claisen-Schmidt reaction? Discuss with an example. (5)
- 6a) Discuss the mechanism, kinetics, stereochemistry involved in SN2 reactions. 3M
- 6b) Why polar aprotic solvents are preferred for SN2 reactions? 2M (5)
- Give the structure and uses of the following compounds: 5x1M = 5M
- a) methyl salicylate b) paraldehyde
- c) ethyl chloride d) glycerol (5)
- e) lactic acid

Exam Date & Time: 07-May-2018 (09:30 AM - 12:30 PM)



# MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

END SEMESTER THEORY EXAMINATIONS- MAY 2018

PROGRAM: BPHARM SEMESTER 2

DATE: 07/05/2018

TIME: 9:30 AM - 12:30 PM

Human Anatomy and Physiology-II [PHA-BP201T]

Marks: 75

Duration: 100 min

Answer all the questions.

- 1) Explain the sequence of events that generate neuronal action potential (10)
- 2) Explain the process involved in synthesis, storage, release and action of transmitters in ANS (10)

### III Short Answers

Answer all the questions.

- 1) Discuss the physiology of hearing (5)
- 2) Describe the anatomy of lungs (5)
- 3) Discuss the reabsorption process in proximal convoluted tubule (5)
- 4) How is blood glucose level maintained by glucagon and insulin (5)
- 5) Describe the process of oogenesis (5)
- 6) Classify hormones secreted by posterior pituitary gland. Explain the actions of ADH (5)
- 7) Describe the anatomy of kidney (5)

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Exam Date & Time: 09-May-2018 (09:30 AM - 12:30 PM)



# MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

END SEMESTER THEORY EXAMINATIONS - MAY 2018

PROGRAM: BPHARM SEMESTER 2

DATE: 09/05/2018

TIME: 09:30 AM - 12:30 PM

Biochemistry [PBT-BP203T]

Marks: 75

Duration: 180 mins.

I Multiple Choice

## II Long Answers

Answer all the questions.

- 1) Mention the synonyms for aerobic oxidation of glucose in cytosol and sketch the pathway. Add a note on its energetics. (10)
- 2) With respect to nucleic acid metabolism, explain the following: (10)
  - a) Genetic code
  - b) Steps in transcription process

## III Short Answers

Answer all the questions.

- 1) Define the terms exergonic and endergonic reactions with an example for each. Add a note on redox potential. (5)
- 2) Write short notes on the following: (5)
  - a) Degradation of IMP
  - b) Components of electron transport chain
- 3) Give the enzyme defect, clinical manifestations, diagnosis and treatment associated with alkaptonuria. (5)
- 4) Sketch the urea cycle. (5)
- 5) Define  $\beta$ -oxidation. Write briefly on carnitine shuttle system. (5)
- 6) Define enzymes. Enlist any four properties of enzymes and write briefly on their nomenclature. (5)
- 7) Give the IUB classification of enzymes, citing suitable reaction under each class. (5)

Exam Date & Time: 11-May-2018 (09:30 AM - 12:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES  
END SEMESTER THEORY EXAMINATIONS- MAY 2018  
PROGRAM: BPHARM SEMESTER 2

DATE: 11/05/2018

TIME: 9:30 AM - 11:30 PM

ENVIRONMENTAL SCIENCES [PMA-BP206T]

Marks: 50

Duration: 120 mins.

### I Long Answers

Answer all the questions.

- 1) Discuss causes, effects and control measures of Water pollution. (10)
- 2) Explain renewable and nonrenewable resources with examples. Add a note on afforestation and deforestation. (5+5=10 marks) (10)

### II Short Answers

Answer all the questions.

- 1) Explain in brief water, mineral, food, energy and land resources. (5)
- 2) Discuss in brief issues involved in enforcement of environment legislation. (5)
- 3) Discuss in brief Solid waste management. (5)
- 4) Briefly describe the procedure for nitrogen recycling in the ecosystem. (5)
- 5) What do you mean by sub-climax? Explain different types of sub-climax with examples. (5)
- 6) Define Biodiversity. Explain various threats to biodiversity with examples. (5)

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