Exam Date & Time: 03-May-2018 (02:00 PM - 05:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- MAY 2018
PROGRAM: MPHARM SEMESTER 2 (PHARMACOLOGY)
DATE: 03/05/2018
TIME: 2:00 PM - 5:00 PM

Advanced Pharmacology II [PHA-MPL201T]

Marks: 50 **Duration: 180 mins.**

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

1) Explain the mechanism of action of alkylating agents. (5)

2) Discuss how drugs interfere with the immune responses in the human body (5)

3) With a neat labeled diagram, explain the regulation of acid secretion and the drugs that intervene at different sites (5)

4) Explain the mechanism of action of Teneligliptin and Voglibose (5)

5) With suitable diagram and examples, explain the mechanism of action of antiretroviral drugs. (5)

6) Outline the steps involved in the synthesis of thyroid hormones and indicate the site of actions of various anti thyroid drugs. (5)

7) Explain the mechanism of any two classes of antifungal agents (5)

8) Discuss the actiology and pathophysiology of COPD. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

9) What is the rationale of chronotherapy in asthma? (2)

A) (2)

B) With examples, mention the classes of antioxidants. (2)

C) Explain the pharmacological basis of combination of Cyclophosphamide and Mesna. (2)

D) Explain why is domperidone preferred to metoclopramide in vomiting induced by levodopa (2)

E) Why zidovudine should not be combined with stavudine? (2)

-----End-----

Time: 05-May-2018 (02:00 PM - 05:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- MAY 2018
PROGRAM: MPHARM SEMESTER 2 (PHARMACOLOGY)
DATE: 05/05/2018
TIME: 2:00 PM - 5:00 PM

Pharmacological and Toxicological Screening Methods II [PHA-MPL202T]

Marks: 50 **Duration: 180 mins.**

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

1) Briefly discuss the types of audits that are performed by quality assurance unit for GLP compliance (5)

2) Discuss various agencies that issue guidelines for the conduct of toxicity study in animals. (5)

3) Explain the parameters monitored in sub-acute toxicity studies as per OECD guidelines 407 (5)

4) Discuss the grading of skin reactions as per OECD guidelines 404 (5)

5) Explain the following terms in assessing reproductive toxicity still births, males of proven fertility, post implantation loss and teratogen. (5)

6) What is the purpose and rationale behind the gastric emptying assay? Describe the procedure and challenges. (5)

7) What do you understand by follow up studies in CNS safety Pharmacology? Name three different follow up tests? (5)

8) What is chromosomal Aberration test? Explain it with advantages and disadvantages. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

9) LD_{50} of a chemical, which was tested for oral acute toxicity, was found to be 250 mg/kg. Mention the warning signs and symbols that must be printed in the label for (2)

A) this test chemical as per Global Harmonized System of classification and

B) Explain the duration of chronic toxicity studies as per S4 document of ICH guidelines.

C) What is 3Rs Philosophy?

D) Name only different follow-up studies used in CNS safety pharmacology (2)

E) What is toxicokinetic? Mention its significance. (2)

-----End-----

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- MAY 2018
PROGRAM: MPHARM SEMESTER 2 (PHARMACOLOGY)
DATE: 07/05/2018
TIME: 2:00 PM - 5:00 PM

Principles of Drug Discovery [PHA-MPL203T]

Duration: 180 mins.

Marks: 50

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

1) Discuss the target identification process with an example (5)

2) Explain the genomic methods for drug target discovery (5)

3) Discuss the use of X-ray diffraction and NMR in drug discovery (5)

4) Describe High-throughput screening in drug discovery with example (5)

5) Explain the steps involved in structure based drug design. List their disadvantages. (5)

6) Explain the methods for traditional drug design. List their disadvantages. (5)

7) Describe carrier linked and bio precursor pro-drug design (5)

8) Explain the QSAR based drug design with steps involved and its advantages. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

9) What are the primary and secondary constraints in De Novo Drug Design? (2)

A)

B) Define pharmacophore. Mention the ways to develop pharmacophore. (2)

C) Explain the meaning of 'Hit' in drug discovery

D) Explain with example how pro-drug approach improves lipophilicity and duration of action of a drug (2)

E) How do SiRNA modulates gene expression? (2)

-----End-----

Time: 09-May-2018 (02:00 PM - 05:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- MAY 2018
PROGRAM: MPHARM SEMESTER 2 (PHARMACOLOGY)
DATE: 09/05/2018
TIME: 2:00 PM - 5:00 PM

Clinical Research and Pharmacovigilance [PHA-MPL204T]

Marks: 50 **Duration: 180 mins.**

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

1) Describe the roles and responsibilities of pharmacovigilance team (5)

2) Explain the guidelines for ADR reporting (5)

3) Discuss the principles and applications of pharmaco-economics (5)

4) Explain the ways in which pharmacists can contribute to pharmaco-epidemiology (5)

5) Explain the roles and responsibilities of principal investigator in clinical trials (5)

6) Describe the WHO scale of causality assessment of ADR (5)

7) Write the composition of Institutional Review Board and its role in clinical trials (5)

8) Discuss the ethical principles involved for human subjects in the conduct of clinical trials (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

9) What is a CAPA plan?

A) (2)

B) List the sources for safety information (2)

C) Write the ICH definition of clinical trials

D) What is the difference between an ADR and an AE?

E) What do you mean by Informed consent in clinical trials? (2)

-----End-----