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LQ—06—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M.Pharm. (First Year) (Second Semester) EXAMINATION

JULY/AUGUST, 2023

ADVANCE PHARMACOLOGY-II

(MPL–201T)

(Tuesday, 11-07-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Answer to the point only.

1. Answer the following questions : 10×2=20

(*a*) What is COPD ?

(*b*) What is Helminthiasis ? Give examples of drugs used to treat such condition.

(*c*) What is Chronopharmacology ?

(*d*) Write a note on Chemotherapy

(*e*) Write on circadian rhythms.

(*f*) Define immunostimulants. Give example.

P.T.O.

(*g*) Enlist drugs used in treatment of Parkinson's disease.

(*h*) Define antiemetics. Give example.

(*i*) What are antithyroid drugs ? Give example.

(*j*) Enlist cellular and biochemical mediators involved in inflammation.

2. Answer the following (*any two*) : 2×10=20

(*a*) Explain the following :

(*i*) Chemotherapy of leprosy.

(*ii*) Treatment of tuberculosis.

(*b*) What is diabetes insipidus ? Classify the drugs used in it treatment and explain pharmacology of any *one* class.

(*c*) Explain the cellular mechanism of action of the following drugs :

(*a*) Corticosteroids.

(*b*) Growth hormones.

3. Answer the following (any *seven*) : 7×5=35

(*a*) Explain pharmacotherapy of Asthma.

(*b*) Write in brief about NSAJDS.

(*c*) Write about treatment of fungal infection.

(*d*) Write a short note on newer antifungal agents.

(*e*) Write on recent advances in the treatment of asthma.

(*f*) Explain cellular mechanism of action of thyroid hormones.

(*g*) Write in brief about management of diabetes mellitus.

(*h*) Write in brief about new drug delivery system in cancer chemotherapy.

(*i*) Explain role of free radicals in etiopathology of neurodegeneratic disorders.

This question paper contains 2 printed pages]

LQ—16—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M. Pharma (Second Semester) EXAMINATION

JULY/AUGUST, 2023

PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS-II

Paper MPL 202T

(Thursday, 13-07-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 Hours *Maximum Marks—75*

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Answer to the point only.

(*iii*) Illustrate your answer with neat sketch wherever neccessary.

1. Answer the following questions : 10×2=20

(*a*) Define schedule Y.

(*b*) What is Ames test ?

(*c*) What is HERG assay ?

(*d*) Enlist the importance of IND.

(*e*) Write the principle of Good Laboratory Practice.

(*f*) Enlist the alternative methods of animal toxicity testing.

(*g*) What do you mean by Genotoxicity ?

(*h*) What is meant quantal dose response ?

(*i*) What is skin sensitization ?

(*j*) Write the list of studies needed for IND submission.

P.T.O.

2. Answer *any two* of the following : 2×10=20

(a) Describe in detail the ICH guidelines for conducting toxicity studies.

(b) Write in detail the segment-I and III female reproductive studies.

(c) Define safety pharmacology. Describe in detail Tier 1 & Tier 2 safety Pharmacology Studies.

3. Answer any *seven* of the following : 7×5=35

(a) Write on HERG assay and its importance.

(b) Explain in detail general and regulatory toxicology.

(c) Write about repeated dose toxicity study.

(d) Discuss about different regulatory guidelines for conducting toxicity studies.

(e) Write a short note on carcinogenicity testing studies.

(f) What is teratogenicity study ? Discuss its study design and evaluation.

(g) Explain :

(1) Mechanistic toxicology

(2) Descriptive toxicology.

(h) Write about IND application form.

(i) Discuss in detail about male reproductive toxicity testing.

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LQ—26—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M. Pharma (Second Semester) EXAMINATION

JULY/AUGUST, 2023

PRINCIPLES OF DRUG DISCOVERY

MPL 203T

(Saturday, 15-7-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Answer to the point only.

1. Answer the following questions : 2×10=20

(*a*) What is SiRNA ?

(*b*) Write examples of transgenic animal used in drug discovery.

(*c*) Define Motif with an example.

(*d*) Why Denovo drug discovery is called SO ?

(*e*) What are different levels of protein structure ?

(*f*) What is drug likeness ?

(*g*) Write *four* examples of pharmacophore.

(*h*) Enlist different softwares for docking.

(*i*) Write importance of multivariant statistical method.

(*j*) Write limitation of prodrug design.

P.T.O.

2. Answer any *two* of the following : 10×2=20

(*a*) Define and explain target identification and validation. Write the role of NMR and X-ray crystallography for same.

(*b*) Enlist and explain different types of molecular docking with suitable example.

(*c*) Write in detail about COMFA and COMSA.

3. Answer any SEVEN of the following : 5×7=35

(*a*) Write the role of genomics in drug discovery.

(*b*) Write working and principle of nucleic acid and micro-array.

(*c*) Write a note on computational predication of protein synthesis.

(*d*) Define transgenic animals. Write its role in target validation.

(*e*) Write history and development of QSAR and SAR.

(*f*) Write a note on anti-sense technology.

(*g*) Write a comparative note on traditional *Vs* rational drug discovery.

(*h*) Write a note on combination of chemistry.

(*i*) Explain different virtual based screening in drug discovery.

This question paper contains 2 printed pages]

LQ—36—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M. Pharm (Second Semester) EXAMINATION

JULY/AUGUST, 2023

CLINICAL RESEARCH AND PHARMACOVIGILANCE

MPL 204T

(Tuesday, 18-07-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Answer to the point only.

1. Answer the following : 20

(*a*) What is an Adverse Drug Event (ADE) ?

(*b*) What is an Adverse Drug Reaction ?

(*c*) Define safety pharmacology.

(*d*) What do you mean by causality ?

(*e*) When do you consider an event to be serious ?

(*f*) What is yellow card in pharmacovigilance ?

(g) What is informed consent ?

(*h*) Give difference between NDA and ANDA.

(*i*) What do you mean by MedDRA ?

(*j*) What is IND approval ?

P.T.O.

2. Answer the following (Any *two*) : 20

(*a*) Explain in detail about Schedule Y.

(*b*) Enumerate types and methods of pharmacoeconomics.

(*c*) Write in detail necessary requirements for Indian pharmacovigilance programme.

3. Answer any *seven* of the following : 7×5=35

(*a*) Write a short note on pharmacoepidemiology.

(*b*) Enumerate about International and Non-international names of drug.

(*c*) Explain in detail about ICH guidelines for pharmacovigilance.

(*d*) Write in detail types of adverse drug reactions with example.

(*e*) Write about pharmacovigilance methods in ADR reporting.

(*f*) Write a note on clinical trial design.

(*g*) Explain in detail safety pharmacology.

(*h*) Write the role and responsibilities of :

(*i*) Investigator

(*ii*) Study co-ordinator

(*i*) Describe the WHO international drug monitoring programme.