

POST GRADUATE EXAMINATION, APRIL - 2019

**MD PHARMACOLOGY
(PAPER ONE)**

GENERAL & BASIC PHARMACOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. Discuss in detail recent approaches to improve post approval drug safety surveillance. (20)
- Q. 2. Discuss the strategies that should be adopted for clinical evaluation of a new compound that has been found to possess useful pharmacological activity in animal studies. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- Desensitization of receptors
 - 5-HT in health & disease
 - Geriatric pharmacology
- Q. 4. Write short notes on: (5 x 6 = 30)
- Transdermal patches
 - Translational medicine
 - Sir James Black
 - L-arginine
 - Nuclear receptors

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**MD PHARMACOLOGY
(PAPER TWO)**

SYSTEMIC PHARMACOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss role of adrenergic α -receptor subtypes in regulation of vascular tone. **(20)**

Q. 2. Describe ancillary properties of β -blockers. Describe advantages and limitations of vasodilatory beta-adrenergic receptor blockers. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**

- a. Antiarrhythmic drugs affecting delayed rectifier K^+ current in heart
- b. Current status of inotropes in congestive cardiac failure
- c. Direct thrombin inhibitors

Q. 4. Write short notes on: **(5 x 6 = 30)**

- a. Pharmacokinetics of lithium carbonate
- b. Selective serotonin noradrenaline reuptake inhibitors (SNRIs)
- c. Enkephalins and analgesia
- d. Centrally acting skeletal muscle relaxants
- e. COMT – inhibitors

X

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**MD PHARMACOLOGY
(PAPER THREE)**

**SYSTEMIC EXPERIMENTAL PHARMACOLOGY AND BIOASSAYS, SCREENING METHODS,
BIOSTATISTICS & QUESTION RELATED TO THESIS WORK**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. Describe various toxicity studies in animals to assess the safety of a drug. (20)
- Q. 2. Describe various experimental methods for evaluation of analgesic agents. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- HPLC and its applications in pharmacology
 - Selection of appropriate statistical test
 - 'P' drug concept
- Q. 4. Write short notes on: (5 x 6 = 30)
- Contribution of Nobel laureates in pharmacology
 - Competitive antagonism
 - Newer drug delivery system
 - Structure of a scientific paper
 - Role and responsibilities of animal ethics committee

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**MD PHARMACOLOGY
(PAPER FOUR)**

THERAPEUTICS AND TOXICOLOGY, RECENT ADVANCES IN PHARMACOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe the hormonal drug therapy, along with their therapeutic status, used in treatment of various cancers. (20)
- Q. 2.** Describe the drug therapy of nausea/vomiting in various settings. What are the recent advances in the field of antiemetic drug therapy? (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- Biological therapies in rheumatoid arthritis
 - Beta blockers in congestive cardiac failure
 - Thalidomide and its congeners
- Q. 4. Write short notes on:** (5 x 6 = 30)
- Treatment of MDR tuberculosis
 - Atypical antipsychotic 'Aripiprazole'
 - Prostaglandin analogue in glaucoma
 - Oseltamivir
 - Botulinum toxin