M.D. DEGREE EXAMINATION, OCTOBER 1990

Branch VI — Pharmacology

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIOASSAY

Time : Three hours

Answer ALL the questions.

1. Discuss age related changes in drug disposition giving suitable examples.

2. Discuss the methods employed for screening potential anti-inflammatory drugs in experimental set up.

3. Discuss briefly :

(a) The role of adenyl cyclase-cyclic AMP system in pharmacological action of drugs.

(b) The methods used in bioassay of catecholamines.

(c) The biological variations in human drug response with suitable examples.

(d) The use of placebos in clinical trials.

(e) The factors affecting passage of drugs across biological membranes.

(f) Drug induced teratogenesis

4. Discuss the methods used in bioassay of catecholamines.

5. Briefly outline the biological variations in human drug response. Illustrate your answer with suitable examples.

6. Discuss briefly the use of placebos in clinical trials.

7. Write a note on factors affecting passage of drugs across biological membranes.

8. Give a brief account of drug-induced teratogenesis.

March-1991

M.D. DEGREE EXAMINATION, MARCH 1991.

Branch VI — Pharmacology

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO-ASSAY

Time : Three hours.

Answer ALL the questions.

1. What are the recent advances in pharmacology of Histamine receptors ?

2. Enumerate the methods of bioassay of 5 Hydroxy-tryptamine. Describe the experimental details of one of the most sensitive preparations.

3. Write short notes on :

(a) Biotransformation of drugs by conjugation.

(b) Potentiation.

(c) Screening of anti-malignancy drugs.

(d) Transdermal Glyceryl trinitrate in reducing failures of intravenous infusions.

(e) Pharmacodynamics of cephalosporins.

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M.D. DEGREE EXAMINATION, SEPTEMBER 1992.

Branch VI - Pharmacology

Paper I

General Pharmacology, Experimental Pharmacology and Bio-Assay

Time: Three Hours Max. Marks: 100

Answer all Questions

1. Discuss briefly the pharmacogenetics with suitable examples. (25)

2. Enumerate the methods of evaluating skeletal muscle relaxants. Mention the experimental details of one of the sensitive preparations. (25)

3. Write short notes on:

   a. Drug conjugations

   b. Animal model for depression

   c. First pass metabolism

   d. Ion channels

   e. Carrier mediated transport

(10x5)

November-1993

[PR367]

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

(Old/New Regulations)

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO-ASSAY

Time : Three hours. Maximum : 100 marks.

Answer ALL questions.

1. Describe the various phases of clinical evaluation of a new drug. (25)

2. Describe in detail the methods of evaluation of an antifertility agent. (25)

3. Write briefly on :

(*a*) Rational drug therapy.

(*b*) Zero order kinetics.

(*c*) Bioequivalence.

(*d*) Student 't' test.

(*e*) Placental barrier. ($5 \times 10 = 50$)

April-1995

[SB 167]

# M.D. DEGREE EXAMINATION

## Branch VI — Pharmacology

(Old/New Regulations)

## Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO-ASSAY

Time : Three hours. Maximum : 100 marks.

Answer ALL questions.

1. Describe the various clinical pharmacokinetic parameters that influence drug effects and dosage regimen, with particular reference to digoxin. (25)

2. Discuss the methods for evaluation of drugs for use in essential hypertension. (25)

3. Write briefly on :

   (a) Therapeutic monitoring of drug effects

   (b) Down-regulation and Up-regulation of receptors

   (c) Epidural administration of drugs

   (d) Physical dependence and its management

   (e) Pre-systemic elimination of drugs. (5×10=50)

April-1997

MP 128

M.D. DEGREE EXAMINATION

Branch VI - Pharmacology

(New/Revised Regulations)

Paper I - GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO-ASSAY

Time: Three hours Max.marks:100

Answer All Questions

1. Explain the molecular mechanisms involved in pharmacodynamics of drugs with suitable examples. (25)

2. How will you evaluate until marketing a plant product which is claimed to have antipeptic ulcer activity? (25)

3. Write briefly on:

   (a) Enzyme linked immunoassay

   (b) U.S.von Euler

   (c) Acute toxicity study

   (d) Lectins in diagnosis and therapy

   (e) Volume of distribution of drugs.

(5x10=50)

October-1997

MS 125

M.D. DEGREE EXAMINATION

Branch VI - Pharmacology

(New/Revised Regulations)

Paper I - GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO-ASSAY

Time: Three hours Max.marks:100

Answer All Questions

1. Write in detail about the physico chemical factors influencing transfer of drugs across membranes. (25)

2. How will you experimentally and clinically evaluate a drug claimed to have anti anginal effect? (25)

3. Write briefly on:

   (a) Four point assay

   (b) Development of antibiotics

   (c) Alkaloids in therapeutics

   (d) Nephrotoxic drugs

   (e) Cytochrome $P_{450}$ inhibitors

(5x10=50)

October-1998

**[SM 128]**

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

(New/Revised Regulations)

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIO–ASSAY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Give a detailed account of drug toxicity studies. (25)

2. Critically validate the animal models used to assess the putative anxiolytic drugs/agents. (25)

3. Write briefly on : (5 × 10 = 50)

(a) Radio immunoassay.

(b) Drug dependence.

(c) Paired 't' test.

(d) Novel drug delivery system.

(e) Cytochrome P450.

**[SG 128]** **Sub. Code : 2025**

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

(New/Revised Regulations)

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIOASSAY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Describe G–protein linked transduction mechanisms, which are responsible for receptor–mediated drug effects with suitable examples of receptors and their ligands. (25)

2. How will you experimentally and clinically evaluate a drug claimed to have diuretic effect? (25)

3. Write briefly on : (5 × 10 = 50)

(a) General principles of bioassay.

(b) Bioavailability of drugs.

(c) High performance Liquid Chromatography (HPLC).

(d) $PA_2$

(e) Gene therapy.

October-1999

**[KA 128]** **Sub. Code : 2025**

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch VI — Pharmacology

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY, BIOASSAY

Time : Three hours Maximum : 100 marks

All questions to be attempted.

1. Discuss the different aspects of the topic "Drugs and elderly patients". (25)

2. Describe with suitable examples the different mechanisms of drug action. (25)

3. Write briefly on : (5 × 10 = 50)

   (a) Enzyme induction

   (b) Conditioned Avoidance Response (CAR)

   (c) Student's *t* test

   (d) Acute toxicity study

   (e) Randomixation.

April-2000

**[KB 128]** **Sub. Code : 2025**

M.D. DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Branch VI — Pharmacology

**Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIOASSAY**

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Outline the role of cytokines in health and disease. List its implications for new drug development and pharmacotherapy. (25)

2. Briefly outline the various experimental methods for evaluating anti-inflammatory drugs. (25)

3. Write briefly on : (5 × 10 = 50)

(a) Principles of colorimetry

(b) N M D A receptors

(c) Experimental evaluation of anti-depressants

(d) Pharmacogenetics and its implications to therapy

(e) Experimental models of type II Diabetes mellitus.

October-2000

**[KC 128]** **Sub. Code : 2025**

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

(New/Old/Revised Regulations)

Paper I — GENERAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY AND BIOASSAY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Describe the functioning of the membrane ION CHANNELS. Explain how drugs modulate their function. What are the therapeutic usefulness of such drugs? (25)

2. Give an account of the ANIMAL MODELS OF EPILEPSIES. How do antiepileptic drugs act? Explain the problems involved in the use of antiepileptic drugs in pregnant women. (25)

3. Write briefly on : $(5 \times 10 = 50)$

(a) Transdermal drug delivery

(b) First order and zero order kinetics

(c) Radioimmunoassay for drugs

(d) Drug induced blood dyscrasias

(e) Drug abuse in sports.