

(4 x 2½ = 10)



27



All India Institute of Medical Sciences, Bhubaneswar

2<sup>nd</sup> Professional MBBS Final Examination 2018

Pharmacology (Paper II)

Time: 3 hours

All questions are compulsory

Maximum marks: 75

Use separate Answer sheets for answering Part A & Part B

**PART A (40 Marks)**

1. A 45 yr old male suffering from diabetes mellitus for last 5 yrs, was on Insulin for control of his blood sugar. He developed fever for last 5 days and stopped his insulin. He suddenly became unconscious following several bouts of vomiting. (2+3+3+2= 10)
  - a) What is the provisional diagnosis?
  - b) How will you treat such a case?
  - c) How will you correct his dehydration?
  - d) Name two adverse effects of insulin?
  
2. Discuss the pharmacotherapy of: (5 x 2 = 10)
  - a) Thyrotoxic crisis
  - b) Complicated *Plasmodium falciparum* malaria
  
3. Choose the right drug (one) for the following condition with rationale: (2.5x4 =10)
  - a) A 55 yr old male developed nausea and vomiting after cancer chemotherapy
  - b) A 50 yr old woman suffering Cytomegalo virus infection
  - c) A 35-year-old man suffering from MRSA infection.
  - d) A 50-year male suffering from inflammatory bowel disease
  
4. Write clinical significance of: (2.5 x 4 =10)
  - a) Routine estimation of WBC count during Propylthiouracil therapy
  - b) Antibiotic associated diarrhea
  - c) Using thalidomide in treatment of erythema nodosum leprosum reaction.
  - d) Post antibiotic effect.



**PART B (35 Marks)**

5. **Explain why / how:**

(3 x 5=15)

- a) Tetracycline should not be given to pregnant woman
- b) Iron salts should not be given to Thalassemia patient
- c) Low molecular weight heparin is preferred over conventional heparin in treatment of acute myocardial infarction
- d) Corticosteroid therapy is slowly tapered down
- e) Recombinant parathyroid hormone is used to prevent osteoporosis.

6. **Explain with diagram:**

(5)

Action of gastric acid suppressing drugs for peptic ulcer.

7. **Write brief note on:**

(2.5 x 4 =10)

- a) Clopidogrel – mechanism of action and side effects
- b) Lactulose – mechanism of action and therapeutic uses
- c) Acetylcysteine – mechanism of action and therapeutic uses
- d) Theophylline – mechanism of action and two important drug interactions

8. **Give examples:**

(1 x 5 =5)

- a) Two prokinetic drugs used in treatment of gastro- paresis
- b) Two antidiabetic drugs causing weight gain
- c) Two drugs used for emergency contraception
- d) Two drugs used for management of scabies
- e) Two drugs used for treatment of systemic fungal infections

24  
20  
21  
29  
94



26

All India Institute of Medical Sciences, Bhubaneswar

2<sup>nd</sup> Professional MBBS Final Examination 2018

Pharmacology (Paper I)

Time: 3 hours

All questions are compulsory

Maximum marks: 75

Use separate Answer sheets for answering Part A & Part B

**PART A (40 Marks)**

1. A 50-year-old male was on non-selective MAO inhibitor for depression. He consumed beer and pickled meat during a wedding party of his friend. Few hours later, he was admitted in casualty with a BP of 220/ 120 mm of Hg. (3+3+3+1=10)

- Why his BP increased?
- How this can be prevented?
- How rise in BP can be treated?
- Name one serious complication of sudden rise in BP.

2. Discuss pharmacotherapy of

(5x2=10)

- Status epilepticus
- Myasthenia Gravis

3. Choose the most appropriate drug (one drug) for the following conditions with reasons

(2.5x4=10)

- A 45-year-old farmer suffering from Organophosphate Poisoning
- A 56-year-old man with inoperable pheochromocytoma
- A 50-year-old female with chronic open angle glaucoma
- A 45-year-old with hypertension and poorly controlled diabetes

4. Write Clinical Significance of

(2.5 x 4=10)

- Administering succinylcholine to cholinesterase deficient individual
- Use of beta blockers in migraine
- Not stopping antihypertensive drugs abruptly
- Restricted use of digoxin in heart failure



**PART B (35 Marks)**

**5. Explain why/how**

**(3 x 5 = 15)**

- a) Diazepam is not suitable for long term treatment of Grand Mal Epilepsy.
- b) ACE inhibitors are contraindicated in bilateral renal artery stenosis.
- c) Competitive antagonism is different from non-competitive antagonism.
- d) Thiazide diuretics are useful in Diabetes insipidus.
- e) Adrenaline should not be used along with local anaesthetic agents in ring block.

**6. Explain with diagram:**

Mechanism of action of loop diuretics.

**(5)**

**7. Write brief note on**

**(2.5 x 4 = 10)**

- a) Prostaglandins in glaucoma: Mechanism of action and adverse effects
- b) Clozapine in schizophrenia: Mechanism of action and adverse effects
- c) Volume of distribution – Its calculation and clinical implication
- d) Neostigmine- Two therapeutic uses and two adverse effects

**8. Give examples of two (2) drugs from different classes**

**(1 x 5 = 5)**

- a) Used for prevention of angina pectoris
- b) Used in paroxysmal supra ventricular tachycardia
- c) Used for acute episode of migraine
- d) Used in total intravenous anaesthesia (TIVA)
- e) Which undergo saturation kinetics.



09

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Supplementary Examination 2017**

**Time: 3 Hrs**

**Pharmacology (Paper – II)**

**Max. Marks: 75**

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

**Section – A**

**1. Write Short notes on**

**(4X5=20)**

- a) Emergency contraception
- b) Antibiotics for MRSA
- c) Iron chelators
- d) Penicillins active against pseudomonas

**2. Enumerate**

**(4x 2½=10)**

- a) Five drugs (from different classes) contraindicated in renal failure
- b) Five drugs used in hyperthyroidism
- c) Five adverse effects of systemic corticosteroid therapy
- d) Five inhalational drugs used in bronchial asthma

**3. Write clinical significance of**

**(4x 2½=10)**

- a) Rational antibiotic therapy
- b) Use of beta blockers in thyrotoxicosis
- c) Combining Aminoglycosides with penicillin for infection
- d) Multidrug therapy (MDT) in tuberculosis

**(P.T.O)**

Section - B

**4. Explain why/how**

(5x 3=15)

- a) Raloxifene is used in osteoporosis
- b) Misoprostol is used for NSAIDs induced peptic ulcer.
- c) Folinic acid is used for rescue of high dose methotrexate
- d) Griseofulvin therapy to be given for weeks in fungal skin and hair infection
- e) Oxytocin is preferred over ergometrine for induction of labour

**5. Explain with diagram**

(2x 2½=5)

- a) Mechanism of action of antiplatelet drugs
- b) Mechanism of action of oral hypoglycemic drugs

**6. Write brief note on**

(4x 2½=10)

- a) Insulin – therapeutic uses and adverse effects
- b) Post exposure prophylaxis of HIV infection
- c) Cyclophosphamide – Adverse effects and their prevention
- d) Chloroquin – mechanism of action and adverse effects

**7. Give examples**

(5x1=5)

- a) Two antibiotics for *S Typhi* infection
- b) Two drugs used for lead poisoning
- c) Two drug combinations used in treatment of leprosy infection
- d) Two alkylating agents used in cancer chemotherapy
- e) One reverse transcriptase inhibitor and one protease inhibitor used in HIV infection



10

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Supplementary Examination 2017**

**Time: 3 Hrs**

**Pharmacology (Paper-I)**

**Max. Marks: 75**

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

**Section - A**

**1. Write Short note on**

**(5x4=20)**

- Newer anti-depressants and their advantage over older ones
- Factors governing drug half-life and its clinical implications
- Potassium sparing diuretics
- Clinical uses of benzodiazepines (BZDs)

**2. Enumerate**

**(4x2½=10)**

- Five drugs (from different groups) used in hypertension
- Five drug transport mechanisms in the body
- Five antiepileptic drugs acting through inactivation of Na<sup>+</sup> channels
- Five adverse effects of beta blockers

**3. Write clinical significance of**

**(4x2½=10)**

- Beta blockers as anti-hypertensives
- Using ACE inhibitors as first line drug post myocardial infarction
- Combining carbidopa with levodopa
- Using cholinomimetics in treatment of glaucoma

**(P.T.O)**

**Section - B**

(5x3 =15)

**4. Explain why/how**

- a. Spironolactone can be used in congestive heart failure
- b. Therapeutic drug monitoring is essential for some drugs
- c. Neostigmine is preferred over physostigmine in myasthenia
- d. Adrenaline is used along with Lignocaine during minor surgeries
- e. Loop diuretic therapy enhances digitalis toxicity

**5. Explain with diagram only**

(2x2½=5)

- a. Transdermal drug delivery system
- b. Site of action of various groups of drugs at adrenergic synapse

**6. Write brief note on**

(4x2½=10)

- a. Sodium Valproate – Mechanism of action and adverse effects
- b. Sodium Nitroprusside – Therapeutic uses and adverse effects
- c. Lithium – Mechanism of action and therapeutic uses
- d. Haloperidol – Therapeutic uses and adverse effects

**7. Give examples**

(5x1=5)

- a. Two drugs used for acute attack of migraine
- b. Two drugs which cause hepatic enzyme induction
- c. One drug used for acute attack and one drug for prophylactic therapy of gout
- d. One drug that causes hyperprolactinemia and one drug that causes vomiting
- e. Two Phase I and two phase II drug biotransformation reactions

\*\*\*\*\* The End \*\*\*\*\*



(5x3=15)



08

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Final Examination 2017**  
**Pharmacology (Paper II)**

Time: 3 hours      All questions are compulsory      Maximum marks: 75

**PART A (40 Marks)**

1. A 26-year-old lady with HIV infection is on combination therapy of zidovudine, lamivudine, and nevirapine and was eventually diagnosed with pulmonary tuberculosis. Anti-tubercular therapy comprising of isoniazid, rifampicin, pyrazinamide and ethambutol was started. Ten days later the patient developed nausea and vomiting and severe jaundice. (3+3+2+2=10)
  - a) Discuss why the patient developed jaundice?
  - b) If you think the treatment is not rational, what modification should be done.
  - c) Name two drug interactions of rifampicin
  - d) Name two adverse effects of zidovudine.
  
2. Discuss the pharmacotherapy of : (2 x 5=10)
  - a) Acute severe asthma (status asthmaticus)
  - b) Diabetic ketoacidosis
  
3. Choose the right drug (one drug) for the following conditions. (4 x 2½ =10)
  - a) 35-year-old man suffering from uncomplicated *Plasmodium vivax* malaria
  - b) A 42-year-old woman with urinary tract infection
  - c) A 20-year-old girl with iron deficiency anemia (haemoglobin – 9 g /dL).
  - d) A 60-year-old woman with postmenopausal osteoporosis
  
4. Write clinical significance of: (4 x 2½ =10)
  - a) Using minimum inhibitory concentration (MIC) values for surveillance of antibiotic resistance.
  - b) Using “Mesna” during chemotherapy with cyclophosphamide
  - c) The concept of low dose aspirin.
  - d) Postantibiotic effect of aminoglycosides



**PART B (35 Marks)**

**5. Explain why/how:**

**(5 x 3=15)**

- a) Propylthiouracil is preferred over carbimazole for hyperthyroidism in pregnancy.
- b) Liposomal Amphotericin B is preferred over conventional amphotericin B
- c) Reteplase is preferred over streptokinase as thrombolytic drug
- d) Antacids are not a part of physician prescribed drugs/regimen for peptic ulcer.
- e) Physical and chemical antagonisms are made use of in a poisoned patient.

**6. Explain with diagram:** The synthesis of thyroid hormone and the site of action of various drugs affecting it.

**(5)**

**7. Write brief note on:**

**(4 x 2½=10)**

- a) Emergency contraception – mechanism of action and method of use
- b) Cyclosporine –therapeutic uses and important adverse effects
- c) Oral rehydration solution – Composition and method of use
- d) Mechanism of action and adverse effects of metformin

**8. Give examples:**

**(5 x 1=5)**

- a) Two drugs used for *H. pylori* eradication.
- b) Two drugs used for management of gastroesophageal reflux disease.
- c) Two drugs used in H1N1 influenza
- d) Two inhalational corticosteroids
- e) Two anti-pseudomonal antibiotics



07

**All India Institute of Medical Sciences, Bhubaneswar**

**2<sup>nd</sup> Professional MBBS Final Examination 2017**

**Pharmacology (Paper I)**

**Time: 3 hours      All questions are compulsory      Maximum marks: 75**

**PART A (40 Marks)**

1. A 65-year-old female complaining of pain shoulder was administered 40 mg diclofenac intramuscularly by a nurse in a PHC. Thirty minutes post administration, patient felt her throat beginning to swell, developed a rash with generalized pruritus, and felt dizzy with a sense of impending doom. She was diagnosed as a case of drug (diclofenac) induced Type I hypersensitivity reaction (Anaphylaxis). (2+2+3+3=10)

- a) What is the drug of choice that has to be administered as a first line of management?
- b) Mention two important contraindications for the drug you chose for first line of management.
- c) List other drugs that may be useful in the management of this condition?
- d) In general, what measures one has to take to avoid drug allergy?

(5 x 2 =10)

**2. Discuss pharmacotherapy of**

- a) Acute Congestive Glaucoma
- b) Atropine poisoning

**3. Choose the right drug (one drug) for the following conditions with reason (4x2½=10)**

- a) A 12-year-old boy having absence seizure
- b) A 25-year-old male with pheochromocytoma
- c) Knee pain due to osteoarthritis in a 60-year-old man
- d) Systemic hypertension with benign prostatic hypertrophy in a 65-year-old man

(4x2½=10)

**4. Write clinical significance of**

- a) Addition of a vasoconstrictor to local anesthetic for spinal (subarachnoid) block
- b) Eliciting drug history during a patient encounter
- c) Inhalation route of drug administration
- d) Volume of distribution of a drug



**PART B (35 Marks)**

All In  
2<sup>nd</sup> Profes  
Time: 3 Hrs

**5. Explain why/how**

(5 x 3 = 15)

- a) Hypokalemia enhances digitalis toxicity.
- b) Beta blockers are avoided in patients with bronchial asthma.
- c) ACE inhibitors cause dry cough in some patients.
- d) Osmotic diuretic should not be given to treat pulmonary edema
- e) Acetylcholine is not used as a therapeutic agent

**6. Explain with diagram: Transdermal drug delivery**

(5)

**7. Write brief note on**

(4x2½ = 10)

- a) Haloperidol – therapeutic uses and adverse effects
- b) Neostigmine- mechanism of action and therapeutic uses
- c) Sodium valproate – therapeutic uses and adverse effects
- d) Spironolactone – mechanism of action and therapeutic uses

**8. Give examples**

(1 x 5 = 5)

- a) Two drugs which undergo saturation kinetics in high dose.
- b) Two drugs for prophylaxis of migraine
- c) Two short acting drugs for ophthalmic fundoscopy
- d) Two drugs commonly abused by sports personnel
- e) Two short acting muscle relaxants used in general anesthetic practice

3=15)

13  
06



**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS (Supplementary) Examination 2016**

**Time: 3 Hrs**

**Pharmacology (Paper – II)**

**Max. Marks: 100**

**Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.**

**Section – A**

**1. Write Short notes on**

**(5X5=25)**

- a) Proton Pump Inhibitors (PPIs)
- b) General toxicity of cancer chemotherapy
- c) Superinfection
- d) Management of Diabetic ketoacidosis
- e) Inhalational corticosteroids in bronchial asthma

**2. Enumerate**

**(4x 2½=10)**

- a) Five antiplatelet drugs
- b) Five azole antifungal agents
- c) Five important uses of metronidazole
- d) Five adverse effects of tetracyclines

**3. Write clinical significance of**

**(5x3=15)**

- a) Use of oral neomycin in hepatic coma
- b) Postmenopausal hormone replacement therapy
- c) Using single high dose of aminoglycoside instead of small divided doses
- d) Artemisinin-based combination therapy in acute uncomplicated falciparum malaria
- e) Using albendazole as preferred agent over praziquantel in neurocysticercosis

**(P.T.O)**

**Section - B**

**4. Explain why/how**

**(5x 4=20)**

- a) Metronidazole is combined with Diloxanide furoate in the treatment of intestinal amebiasis
- b) Calcitonin is combined initially with bisphosphonates (BPNs) for treatment of hypercalcemia
- c) Oxytocin is preferred over ergometrine in induction of labour
- d) Rifampicin causes oral contraceptive failure
- e) Estrogen and Progesterone are combined in oral contraceptive pill

**5. Explain with diagram**

**(2x 5=10)**

- a) Sites of action of antibacterial agents
- b) Mechanism of action of cyclosporine

**6. Differentiate between**

**(2x 5=10)**

- a) Metoclopramide and Domperidone
- b) Mechanism of action of warfarin and heparin

**7. Give examples**

**(5x2=10)**

- a) Four bactericidal antimicrobial agents
- b) Four antiretroviral agents
- c) Two drugs that block TNF- $\alpha$
- d) Two oral iron formulations and two parenteral iron preparations
- e) Two bulk forming laxatives and two stool softener

**\*\*\*\*\* The End \*\*\*\*\***



All India Institute of Medical Sciences, Bhubaneswar  
2<sup>nd</sup> Professional MBBS (Supplementary) Examination 2016

Time: 3 Hrs

Pharmacology (Paper – I)

Max. Marks: 100

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

Section - A

1. Write Short note on

(5x5=25)

- Therapeutic uses of anticholinesterases
- Drug tolerance
- Atypical antipsychotics
- Preanesthetic medication
- Factors affecting bioavailability

2. Enumerate

(4x2½=10)

- Five vasodialtor drugs used in treatment of congestive heart failure (CHF)
- Five adverse effects of digitalis
- Five prostaglandin analongs used clinically
- Five important uses of organic nitrates

3. Write clinical significance of

(5x3=15)

- Combining potassium sparing diuretics with thiazides
- Combination of levodopa in parkinsonism
- Avoiding combination of verapamil with digoxin during treatment of CHF.
- Phenoxybenzamine in treatment of pheochromocytoma
- Neostigmine used in myasthenia gravis

(P.T.O)

(P.T.O)

Section - B

**4. Explain why/how**

**(4x5 = 20)**

- a. Intravenous route is the route of emergency
- b. Methadone as a substitution therapy for opioid dependence
- c. Pralidoxime is ineffective in carbamate poisoning
- d. Beta blockers result in tiredness and impaired exercise capacity

**5. Explain with diagram only**

**(2x5 = 10)**

- a. Dose response curve showing competitive receptor antagonism
- b. Mechanism of action of transdermal patch

**6. Differentiate between**

**(2x5 = 10)**

- a. Atropine and phenylephrine as mydriatics
- b. Loading dose and maintenance dose

**7. Give examples**

**(5x2=10)**

- a. Two drugs causing hepatotoxicity and two drugs causing nephrotoxicity
- b. Two drugs which cause bronchodilation and two drugs which cause nasal decongestion
- c. Two drugs that cause hyperprolactinemia and two drugs that cause vomiting
- d. Two peripherally acting and two centrally acting skeletal muscle relaxants
- e. Two cytochrome P450 enzyme inducers and their clinical significance

**\*\*\*\*\* The End \*\*\*\*\***





03

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Final Examination 2016**

**Time: 3 Hrs**

**Pharmacology (Paper – II)**

**Max. Marks: 75**

**Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.**

**Section – A**

**1. Write Short notes on**

**(4X5=20)**

- a) Management of complicated falciparum malaria
- b) Antimetabolites in cancer chemotherapy
- c) Emergency contraception
- d) Anti-staphylococcal penicillins

**2. Enumerate**

**(4x 2½=10)**

- a) Five indications of 3<sup>rd</sup> generation cephalosporins
- b) Five mechanisms of antimicrobial resistance
- c) Five drugs contraindicated in pregnancy
- d) Five contraindications of glucocorticoid therapy

**3. Write clinical significance of**

**(4x 2½=10)**

- a) Using minimum inhibitory concentration (MIC) values for surveillance of antibiotic resistance
- b) Heparin induced thrombocytopenia
- c) Using split dose insulin therapy in management of diabetes
- d) Use of liposomal formulations of amphotericin-B

**(P.T.O)**

Section - B

4. Explain why/how

(5x 3=15)

- a) Bisphosphonates can prevent osteoporosis
- b) Misoprostol is used for NSAIDs induced peptic ulcer.
- c) Ritonavir is combined with lopinavir
- d) Gentamicin is combined with penicillin in treatment of endocarditis
- e) Corticosteroids are combined with albendazole for therapy of the neurocysticercosis

5. Explain with diagram

(2x 2½=5)

- a) Mechanism of action of antiplatelet drugs
- b) Mechanism of action of antiretroviral drugs

6. Write brief note on

(4x 2½=10)

- a) Cyclosporine – therapeutic uses and adverse effects
- b) Regiments for post-exposure prophylaxis of HIV
- c) Ifosfamide – Adverse effects and method of prevention
- d) Metformin – mechanism of action and adverse effects

7. Give examples

(5x1=5)

- a) Two antibiotics for *H. Pylori* infection
- b) Two drugs used for thyrotoxic crisis
- c) Two uses of Desferrioxamine
- d) Two drug combinations used in treatment of MRSA infection
- e) Two drugs that are fully humanized monoclonal antibodies in nature



04

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Final Examination 2016**

**Time: 3 Hrs**

**Pharmacology (Paper-I)**

**Max. Marks: 75**

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

**Section - A**

**1. Write Short note on**

**(5x4=20)**

- a. Atypical antipsychotics and their advantage over typical antipsychotics
- b. Management of hypertensive emergency
- c. Management of status epilepticus
- d. Factors governing volume of drug distribution and its clinical implications

**2. Enumerate**

**(4x2½=10)**

- a. Five drugs (from different groups) used in glaucoma
- b. Five drug transport mechanisms in the body
- c. Five drugs that can be delivered transdermally
- d. Five drugs that prolong QT interval

**3. Write clinical significance of**

**(4x2½=10)**

- a. Limited use of digoxin in present clinical practice
- b. Using ACE inhibitors as first line drug in heart failure
- c. Understanding the importance of zero order kinetics in ethanol poisoning
- d. Dose dependent action of dopamine

**(P.T.O)**

**Section - B**

All India Ins  
2<sup>nd</sup> P  
Time: 3 Hrs  
Answer all t  
both Sec

**4. Explain why/how**

(5x3 =15)

- a. Lidocaine is used in ventricular arrhythmia associated with MI
- b. Spironolactone can be used in portal hypertension due to cirrhosis of liver
- c. Beta blockers should be avoided in patients who have bronchial asthma
- d. Adrenaline is used along with Lignocaine during minor surgeries
- e. Therapeutic drug monitoring is essential for some drugs

**5. Explain with diagram only**

(2x2½=5)

- a. Flow chart of pathophysiology of congestive heart failure & site of action of various drugs
- b. G-Protein coupled receptor and its signalling pathway

**6. Write brief note on**

(4x2½=10)

- a. Sumatriptan – Mechanism of action and routes of administration
- b. Succinylcholine – Therapeutic uses and adverse effects
- c. Losartan – Mechanism of action and therapeutic uses
- d. Haloperidol – Therapeutic uses and adverse effects

**7. Give examples**

(5x1=5)

- a. Two drugs which can cause haemolysis in G-6PD deficient individuals
- b. Two drugs used for acute attack of gout
- c. Two drugs which inhibit CYP 450 3A4
- d. Two antihypertensive drugs from different groups that cause hyperkalemia
- e. One drug that cause hyperprolactinemia and one drug that causes vomiting

\*\*\*\*\* The End \*\*\*\*\*

(5X3=15)



01

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Examination 2015**

**Time: 3 Hrs**

**Pharmacology (Paper – II)**

**Max. Marks: 100**

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

**Section – A**

**1. Write Short notes on** (5X5=25)

- a) Insulin sensitizers
- b) Antimetabolites in cancer chemotherapy
- c) Prokinetic agents
- d) Pharmacotherapy of diabetic ketoacidosis
- e) Treatment of acute severe bronchial asthma

**2. Enumerate** (4x 2½=10)

- a) Five mechanisms of antimicrobial resistance
- b) Five adverse drug reactions of Glucocorticoids
- c) Five adverse drug reactions of Estrogen
- d) Five indications of fluoroquinolones

**3. Write clinical significance of** (5x3=15)

- a) Use of Pyridoxine with INH in Tuberculosis
- b) Artemisinin-based combination therapy for treatment of uncomplicated falciparum malaria
- c) Substituting nevirapine with efavirenz in HIV patients who are on anti-tubercular therapy
- d) Using a single high dose of aminoglycoside instead of smaller divided doses
- e) Using combination of Trimethoprim and Sulfamethoxazole

**(P.T.O)**

Section - B

(5x 4=20)

4. Explain why/how

- a) Misoprostol is used for NSAIDs induced peptic ulcer
- b) Ampicillin combined with Sulbactam.
- c) Potassium iodide is useful in management of thyrotoxicosis
- d) Combination of drugs are used in *H. pylori* eradication
- e) Dose adjustment is essential in pediatric and geriatric patients

5. Explain with diagram

(2x 5=10)

- a) Mechanism of action of antiemetic drugs
- b) Mechanism of action of antiplatelet drugs

6. Differentiate between

(2x 5=10)

- a) Sulfonylureas and Biguanides
- b) Unfractionated heparin and low molecular weight heparin

7. Give examples

(5x2=10)

- a) Four Nobel Prize winning antimicrobial agents
- b) Four disease modifying antirheumatic drugs
- c) Two immunosuppressive agents that target Calcineurin and IL-2 receptors
- d) Two drugs those are teratogenic and two drugs those are safe in pregnancy
- e) Two drugs for treatment of Intestinal amebiasis and two drugs for visceral leishmaniasis

\*\*\*\*\* The End \*\*\*\*\*

(5x4=20)



02

**All India Institute of Medical Sciences, Bhubaneswar**  
**2<sup>nd</sup> Professional MBBS Examination 2015**

**Time: 3 Hrs**

**Pharmacology (Paper – I)**

**Max. Marks: 100**

Answer all the questions. Draw diagram wherever necessary. Use separate answer sheet for both Section-A & B.

**Section - A**

**1. Write Short note on**

**(5x5=25)**

- a. Therapeutic drug Monitoring
- b. Management of acute myocardial infarction
- c. Management of status epilepticus
- d. Drugs used in treatment of Parkinson's disease
- e. Volume of distribution and its clinical implications

**2. Enumerate**

**(4x2½=10)**

- a. Five drugs used in hypertensive emergency
- b. Five adverse effects of phenytoin
- c. Five uses of beta blockers
- d. Five important adverse drug effects of Antipsychotic drugs

**3. Write clinical significance of**

**(5x3=15)**

- a. Using N-Acetylcysteine in paracetamol poisoning
- b. Concept of "Drug Holiday" in the treatment of Parkinson's disease
- c. Avoiding combination of verapamil with digoxin during treatment of CHF.
- d. Alpha blockers in treatment of benign prostatic hyperplasia
- e. Use of Phenobarbitone for neonatal hyperbilirubinemia

**(P.T.O)**

Section - B

(5x4 =20)

**4. Explain why/how**

- a. Hypokalemia enhances digitalis toxicity
- b. Opioids are contraindicated in case of undiagnosed acute abdominal pain
- c. Beta blockers should not be administered prior to alpha blockers in pheochromocytoma
- d. ACE inhibitors cause cough
- e. Thiazides act as antihypertensive agents

(2x5= 10)

**5. Explain with diagram only**

- a. G-Protein coupled receptor and its signaling pathway
- b. Mechanism of action of digitalis

(2x5 = 10)

**6. Differentiate between**

- a. Ketamine and Halothane as general anesthetics
- b. Depolarizing and Non-depolarizing muscle relaxants

(5x2=10)

**7. Give examples**

- a. Two amide linked local anesthetics and two ester linked local anesthetics
- b. Two diuretics which cause hypokalemia and two diuretics which cause hyperkalemia
- c. Two drugs that act as sedatives and two drugs that act as hypnotics
- d. Four drugs that can prolong QT interval
- e. Two P450 enzyme inhibitors and their clinical consequence