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University Examination

MBBS – II Prof.

Subject: Pharmacology-I

Paper Code- MBBS- 231

[Time : Three Hours]

[Max. Marks : 100]

Note : Attempt all the questions. Use separate answer sheets for Section A & Section B. Parts of a question must be attempted in sequence. Draw well-labeled diagrams wherever necessary.

MCQs (separate sheet will be provided)

01x20=20]

Section - A

1. A 70 year old male presented to the OPD with complaints of [3+3+4
difficulty in passing urine, poor stream and frequent urge to =10]
urinate for the past few months. Investigations revealed that
he had prostatic enlargement and was prescribed tablet
terazosin 5mg once a day at bedtime. When he got up in the
night to pass urine, he felt dizzy and fainted.

- What is the most likely reason for his dizziness and fainting?
Enumerate two uroselective alpha blockers and explain their
advantages over prazosin.
- What is the mechanism by which terazosin can help in
relieving the symptoms of Benign Prostatic Hyperplasia?
What advantage does it have over prazosin?
- What advice would you give to the patient in order to prevent
the fainting attacks?

2. Describe in brief.

[5x5=25]

- Explain the clinical importance of cytochrome enzyme
induction and cytochrome enzyme inhibition giving suitable
examples
- Depolarizing skeletal muscle relaxants
- Essential medicine concept
- Management of organophosphate poisoning
- Phases of clinical trials

3. Explain the barriers to the implementation of healthcare as a [5]
universal right

Section - B

1. A 35 year old lady is scheduled for surgery and is [3+4+3
prescribed diazepam 10 mg and ranitidine 150 mg orally the =10]
night before surgery by her anaesthesiologist. She is also
given glycopyrrolate pre-operatively in the morning before
surgery. She is anesthetized with an intravenous bolus of
propofol followed by vecuronium bromide. Anaesthesia is
maintained with a mixture of 2% isoflurane, 50% nitrous
oxide and 48% oxygen. The surgery is uneventful and at the
end of surgery isoflurane and nitrous oxide is stopped and
100% oxygen is continued for a few minutes.
 - a. Explain the reason why diazepam, ranitidine and
glycopyrrolate were prescribed prior to surgery
 - b. What is the mechanism of action of propofol and why is it
preferred over thiopentone sodium?
 - c. Explain the advantage of giving isoflurane and nitrous oxide
together. Why was 100% oxygen given for a few minutes
following cessation of anesthetic administration?
2. Describe in brief. [5x5=25]
 - a. Triptans
 - b. Management of status epilepticus
 - c. Inhaled anticholinergics
 - d. Atypical antipsychotics
 - e. Uric acid synthesis inhibitors
3. What do you understand by empathy? Discuss the role of [5]
empathy in patient care

13/11/25

Enrollment No.

SVSU/2024/R-B

Invigilator's Sign.....

University Examination
MBBS – II Prof.
Subject: Pharmacology-I
Paper Code- MBBS- 231
Multiple Choice Questions

[Time : 15 Minutes]

[Max. Marks : 20]

Note: Write your Enroll. Number on the Question paper. Each MCQ carries 01 mark. Each Question has only one best correct response. Encircle the correct answer letter. More than one encircle or any overwriting will be considered a wrong answer. There is no negative marking. DO NOT use a pencil for writing.

I	Loading dose of a drug primarily depends on (a) Volume of distribution (b) Clearance (c) Plasma half life (d) Lipid solubility
II	Which of the following drug crosses the blood brain barrier (a) Pralidoxime (b) Dopamine (c) Physostigmine (d) Vecuronium
III	The rate limiting enzyme in the synthesis of catecholamines is (a) Catechol-O-methyl transferase (b) Tyrosine hydroxylase (c) Dopa decarboxylase (d) Xanthine oxidase
IV	Which of the following drugs is safe in children (a) Aspirin (b) Nimesulide (c) Paracetamol (d) Phenacetin
V	Which of the following is a mucolytic drug (a) Acetylcysteine (b) Dextromethorphan (c) Codeine (d) Promethazine
VI	Which of the following drugs is NOT used for the prophylaxis of migraine (a) Sumatriptan (b) Topiramate (c) Amitriptyline (d) Propranolol
VII	Irreversible inhibitor of cyclo-oxygenase enzyme is (a) Aspirin (b) Indomethacin (c) Paracetamol (d) Celecoxib
VIII	Example of a long acting Beta-2 agonist (a) Salbutamol (b) Terbutaline (c) Formoterol (d) Atenolol
IX	Dose limiting adverse effect of colchicine is (a) Diarrhea (b) Sedation (c) Nephrotoxicity (d) Hepatotoxicity
PTO	

X	Which of the following drug-antidote combination is correct (a) Morphine- Naloxone (c) Paracetamol- Methadone	(b) Atropine- Pilocarpine (d) Diazepam-Fomepizole
XI	Which of the following drugs is NOT effective for smoking cessation (a) Bupropion (c) Nicotine	(b) Varenicline (d) Trimethaphan
XII	The therapeutic effect of levodopa can be reversed by (a) Pyridoxine (c) Domperidone	(b) Metoclopramide (d) Atropine
XIII	Young's formula can be used to calculate the dose of a drug in (a) Elderly patients (c) Patients with renal disease	(b) Children (d) Patients with hepatic disease
XIV	Superinfection due to suppression of bacterial flora by tetracyclines is best described as an example of a drug's (a) Side effect (c) Therapeutic effect	(b) Secondary effect (d) Toxic effect
XV	Which of the following drugs should be avoided in patients with a narrow iridocorneal angle (a) Pilocarpine (c) Timolol	(b) Atropine (d) Latanoprost
XVI	Which term best describes a gradual decrease in responsiveness to a drug, taking weeks to develop (a) Tachyphylaxis (c) Cumulative effect	(b) Idiosyncrasy (d) Tolerance
XVII	Example of a Histaminic H1 receptor blocker (a) Ranitidine (c) Famotidine	(b) Fexofenadine (d) Tolterodine
XVIII	Which drug acts by blocking sodium channels (a) Zolpidem (c) Vigabatrin	(b) Lamotrigine (d) Phentolamine
XIX	Drug of choice for malignant hyperthermia (a) Duloxetine (c) Drotaverine	(b) Dantrolene (d) Doxycycline
XX	All of the following drugs are effective in drug induced Parkinsonism EXCEPT (a) Pheniramine (c) Benztropine	(b) Promethazine (d) Chlorpromazine

Enrollment No.

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M.B.B.S.

II Prof. Examination

Subject Code MBBS -232 Paper II

Subject Name - Pharmacology

[Time : Three Hours]

[Max. Marks : 100]

Note : Attempt all the questions. Use separate answer sheets for Section A & Section B. Parts of a question must be attempted in sequence. Draw well-labeled diagrams wherever necessary.
MCQs (separate sheet will be provided) [01x20=20]

Section A

1. (Problem-based long essay-type question) [3+4+3=10]
A 55 year-old male patient presents to the outpatient department with complaints of increased thirst, frequent urination, and fatigue for the past 3 months. He has a history of hypertension and a BMI of 32 kg/m'. His fasting blood glucose (FBG) is 160 mg/dL, and Hb Alc is 8.2%. He was diagnosed as type 2 diabetes.
 - a. Which class of oral hypoglycemic agents (OHAs) would be the first-line treatment for this patient.
 - b. Describe the mechanism and adverse drug reaction of that drug.
 - c. Enlist various insulin preparations with their route of administration & indications.
2. Write short notes on- [5x3=15]
 - a. ACE inhibitors
 - b. Uses and ADRs of proton pump inhibitors
 - c. Osmotic diuretics
3. Answer in brief: [5x3=15]
 - a. Mechanism of action of Nitrates and its uses
 - b. Role of bisphosphonates in osteoporosis
 - c. Role of Iron chelators in iron poisoning

[P.T.O.]

Section B

1. (Problem-based long essay-type question) [4+4 +2=10]
A 22 year old female comes to the gynecology department for consultation regarding family planning as she was going to get married the next month. The doctor advised her to start using combined estrogen and progesterone containing oral contraceptives.
- What is the mechanism of action of combined OCs
 - What are the adverse effects of combined OCs
 - Write the drugs used for emergency contraception
2. Write short notes on- [5x3=15]
- 3rd generation cephalosporins
 - Pharmacotherapy of malaria caused by P. Vivax
 - Methotrexate
3. Answer in brief: [5x3=15]
- Advantages of low molecular weight heparin (LMWH) over heparin
 - BPALM regimen in drug resistant TB
 - Integrase inhibitors in HIV infection

14/11/25

Enrollment No.

(A) SVSU-R-2025
Invigilator's Signature

M.B.B.S.- II Prof. Examination

Subject Code: MBBS-232
Subject Name: Pharmacology
Multiple Choice Questions

Paper II

[Time : 15 Minutes]

[Max. Marks: 20]

Note: Write your enrollment. Number on the Question paper. Each MCQ carries 01 mark. Each Question has only one best correct response. Encircle the correct answer letter. More than one encircle or any overwriting will be considered the wrong answer. There is no negative marking. DO NOT use a pencil for writing.

- I Low molecular weight heparins (e.g., enoxaparin):
a). Require frequent monitoring b). Have less bioavailability than unfractionated heparin
c). Are given orally d). Preferentially inhibit factor Xa
- II Which of the following hypolipidemic drugs acts by inhibiting triglyceride synthesis?
a) Ezetimibe b) Nicotinic acid
c) Colestipol d) Cholestyramine
- III Which antihypertensive drug causes a dry cough as a side effect?
a). Amlodipine b). Hydrochlorothiazide
c). Enalapril d). Losartan
- IV Which drug is a direct oral Xa inhibitor?
a). Dabigatran b). Apixaban
c). Fondaparinux d). Warfarin
- V Which of the following statements is true about adenosine?
a) Unsafe in wide QRS tachycardia b) Ultra-short acting drug
c) There is risk of increasing blood pressure d) Half life is 10 hrs.
- VI Which of the following is indication of calcium channel blockers?
a) Hypertrophic cardiomyopathy b) Benign Prostatic hyperplasia
c) Wolff-Parkinson-White syndrome d) Ventricular arrhythmias
- VII Which diuretic is most effective in reducing pulmonary edema?
a) Spironolactone b) Furosemide
c) Hydrochlorothiazide d) Acetazolamide
- VIII Which vitamin is given with isoniazid to prevent neuropathy?
a) B1 (thiamine) b) B3 (niacin)
c) B6 (pyridoxine) d) B12 (cobalamin)
- IX Which of the following statements is true about ranolazine?
a) Should not be combined with sildenafil. b) Decreases exercise duration in angina patient.
c) Leads to reduction in Q-T interval. d) Inhibits late sodium current in the myocardium

[P.T.O.]

- X** Which one of the following is oral anticoagulant?
 a) Danaparoid
 b) Rivaroxaban
 c) Argatroban
 d) Fondaparinux
- XI** Ivabradine acts by:
 a). Inhibiting L-type calcium channels
 b). Blocking beta receptors
 c). Inhibiting funny (If) channels in SA node
 d). Inhibiting Na⁺/K⁺ ATPase
- XII** Thyrotoxic crisis is treated with all EXCEPT:
 a) Propranolol
 b) Propylthiouracil
 c) Radioactive iodine
 d) Hydrocortisone
- XIII** Which drug causes haemorrhagic cystitis?
 a) Vinblastine
 b) Cyclophosphamide
 c) Dactinomycin
 d) 5-Fluorouracil
- XIV** The mechanism by which digoxin causes a positive inotropic effect on heart is by:
 a) Increasing ATP hydrolysis.
 b) Stimulating Na/K pump
 c) Increasing intracellular sodium and calcium.
 d) Sensitizing the heart to catecholamines:
- XV** Which of the following is true of nitrates?
 a) Relieves coronary artery spasm
 b) Decreases subendocardial perfusion
 c) Decreases collateral blood flow
 d) Increases ventricular volume
- XVI** Which drug is used in medical management of hyperprolactinemia?
 a) Bromocriptine
 b) Octreotide
 c) Levothyroxine
 d) Hydrocortisone
- XVII** Adverse effects resulting from administration of furosemide include all of the following, except:
 a) Hyperuricemia
 b) Hypercalcaemia
 c) Hypokalaemia
 d) Alkalosis
- XVIII** Anticoagulant effect of warfarin is decreased by all of the following, except:
 a) Barbiturates
 b) Rifampicin
 c) Erythromycin
 d) Oral contraceptives
- XIX** Which of the following statements is true regarding lignocaine?
 a) It is preferably administered by oral route
 b) It is a blocker of sodium channels mainly in the activated state
 c) It is ineffective in atrial arrhythmias
 d) It has marked cardiotoxic potential
- XX** Which antiviral drug is used in the treatment of herpes simplex virus
 a) Zidovudine
 b) Oseltamivir
 c) Acyclovir
 d) Amantadine
