

Printing Pages : 02
Enrollment No.

SVSU/2024/R-A

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University Examination
MBBS Second 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. An 18 yr old boy was brought to emergency in unconscious state. History revealed that the patient had an argument with his mother in the evening. An empty bottle was found by his side. Patient's father has a business in agricultural insecticides. On examination, patient's respiration was slow, pupils were bilaterally constricted, with sweating, muscle twitching and pulse rate 60/minute. [3+3+4 =10]

- What do you think the patient has consumed?
- Explain the mechanism of development of signs and symptoms.
- Discuss the management of this patient including the rationale for drugs used.

2. Describe in brief.

[5x5=25]

- Pharmacotherapy of Methyl Alcohol poisoning
- Pharmacotherapy of Acute Gout
- Pharmacotherapy of Acute Severe Asthma
- Centrally acting Skeletal Muscle Relaxants
- Kinetics of elimination

3. Discuss the role of Autonomy and Shared Responsibility as a guiding principle in patient care [5]

Section - B

1. A 23 yr old male is taken to emergency with complaints [3+4+3=10]
of abnormal body movements and loss of consciousness
for 2-3 minutes. He is a known case of epilepsy and on
Tab. Phenytoin but compliance is poor. Answer the
following questions :
 - a. Discuss the treatment of Status epilepticus
 - b. Explain the mechanism of action of Phenytoin
 - c. Describe the therapeutic uses and adverse effects of
Phenytoin
2. Write short notes on- [5x5=25]
 - a. Mucolytics
 - b. DMARDs
 - c. Drug antagonism
 - d. Pharmacological basis for the use of Lignocaine with
Adrenaline
 - e. Teratogenicity
3. Discuss the therapeutic uses and adverse effects of Beta- [5]
blockers.

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Invigilator's Sign.....

University Examination

MBBS Second Prof.

Subject: Pharmacology-I

Paper Code- MBBS-231

[Time : 15 Minutes]

[Max. Marks: 20]

Note: Write your Enroll. Number on the Question paper. Each MCQ carries a 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** 'Essential drugs' are:
- (a) Life-saving drugs
 - (b) Drugs that meet the priority healthcare needs of the population
 - (c) Drugs that must be present in the emergency bag of a doctor
 - (d) Drugs that are listed in the pharmacopeia of a country
- II** In addition to slow intravenous infusion, which of the following routes of administration allows for titration of the dose of a drug with the response:
- (a) Sublingual
 - (b) Transdermal
 - (c) Inhalational
 - (d) Nasal insufflations
- III** The following attribute of a drug tends to reduce its volume of distribution:
- (a) High lipid solubility
 - (b) Low ionization at physiological pH values
 - (c) High plasma protein binding
 - (d) High tissue binding
- IV** A partial agonist can antagonise the effects of a full agonist because it has:
- (a) High affinity but low intrinsic activity
 - (b) Low affinity but high intrinsic activity
 - (c) No affinity and low intrinsic activity
 - (d) High affinity but no intrinsic activity
- V** The cardiac muscarinic receptors:
- (a) Are of the M₁ subtype
 - (b) Are of the M₂ subtype
 - (c) Are selectively blocked by pirenzepine
 - (d) Function through the PIP₂ → IP₃/DAG path-way
- VI** The following action of adrenaline is not mediated by α receptors :
- (a) Dilatation of blood vessels
 - (b) Dilatation of pupil
 - (c) Bronchodilation
 - (d) Renin release from kidney
- VII** Dobutamine differs from dopamine in that:
- (a) It does not activate peripheral dopaminergic receptors
 - (b) It does not activate adrenergic α receptors
 - (c) It causes pronounced tachycardia
 - (d) It has good blood-brain barrier penetrability
- VIII** The most likely complication of prolonged use of nasal decongestant drops is:
- (a) Atrophic rhinitis
 - (b) Hypertrophy of nasal mucosa
 - (c) Nasopharyngeal moniliasis
 - (d) Blockage of Eustachian tubes

- IX** High anticholinergic property is present in the following antihistaminic:
 (a) Diphenhydramine
 (b) Astemizole
 (c) Cetirizine
 (d) Terfenadine
- X** The most important risk in the use of sumatriptan for treatment of migraine is:
 (a) Precipitation of seizures
 (b) Precipitation of psychosis
 (c) Development of hypertension
 (d) Coronary vasospasm
- XI** Aspirin in low doses produces long lasting inhibition of platelet cyclooxygenase (COX) because:
 (a) Platelets contain low quantity of COX
 (b) Platelets cannot synthesize fresh COX molecules
 (c) Platelets bind aspirin with high affinity
 (d) Platelet COX is inducible
- XII** N-acetylcysteine is beneficial in acute paracetamol poisoning because:
 (a) It reacts with paracetamol to form a nontoxic complex
 (b) It inhibits generation of the toxic metabolite of paracetamol
 (c) It is a free radical scavenger
 (d) It replenishes hepatic glutathione which in turn binds the toxic metabolite of paracetamol
- XIII** Dextromethorphan is an:
 (a) Analgesic
 (b) Antitussive
 (c) Expectorant
 (d) Antihistaminic
- XIV** The following antiasthma drug is not a bronchodilator:
 (a) Ipratropium bromide
 (b) Theophylline
 (c) Formoterol
 (d) Sodium cromoglycate
- XV** Which of the following drugs undergoes 'Hofmann' elimination:
 (a) Succinylcholine
 (b) Pancuronium
 (c) Vecuronium
 (d) Atracurium
- XVI** The local anaesthetic having high cardiotoxic and arrhythmogenic potential is:
 (a) Lignocaine (b) Procaine (c) Bupivacaine (d) Ropivacaine
- XVII** Which general anaesthetic selectively inhibits excitatory NMDA receptors:
 (a) Thiopentone (b) Halothane (c) Desflurane (d) Ketamine
- XVIII** The following drug is used to reverse the CNS depression produced by diazepam:
 (a) Dexamphetamine (b) Doxapram (c) Physostigmine (d) Flumazenil
- XIX** The drug which abolishes the therapeutic effect of levodopa in parkinsonism, but not that of levodopa-carbidopa combination is:
 (a) Metoclopramide (b) Pyridoxine (c) Chlorpromazine (d) Isoniazid
- XX** Which of the following is an atypical neuroleptic drug:
 (a) Loxapine (b) Olanzapine (c) Pimozide (d) Flupenthixol

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University Examination

MBBS II Prof.

Subject: Pharmacology-II

Paper Code- MBBS – 232

[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 40 year old lady presented to the hospital with complaints of weakness, fatigue and giddiness for the past few months. History revealed that she had been diagnosed with iron deficiency anaemia (Hb-9.0gm/dl) for which she was prescribed oral iron therapy in the form of syrup ferric ammonium citrate. She was a known case of hypothyroidism and was on regular levothyroxine therapy (50 mcg/day) in the morning. To prevent gastric irritation, she was also prescribed tablet pantoprazole 40 mg once daily 1 hour before breakfast. She was taking iron therapy regularly and there was no abnormal bleeding. After 2 months, tests revealed that her haemoglobin still had not improved and her Thyroid Stimulating Hormone (TSH) levels which were normal before, were now raised.	[3+3+4 =10]
a.	Explain the reason for her failure to improve with oral iron therapy. Is it advisable to start with parenteral iron therapy? Give reasons	
b.	What was the reason for the rise in TSH levels? Why was pantoprazole prescribed 1 hour before breakfast?	
c.	What changes would you recommend to her treatment; and why?	
2.	Describe in brief.	[5x5=25]
a.	Draw a diagram illustrating the RAAS system & its modulation by various drugs. Compare and contrast ARBs and ACE inhibitors	
b.	Potassium sparing diuretics	
c.	Write the mechanism of action, therapeutic uses and adverse effects of warfarin	
d.	Management of hypertensive emergencies	
e.	Proton Pump Inhibitors	
3.	Discuss various drugs used in Acne vulgaris.	[5]

Section - B

1.	A 30 year old lady came to the OPD with irregular episodes of high grade fever for the past 3 days accompanied by chills and headache. Blood smear examination showed presence of both Plasmodium vivax and Plasmodium falciparum mixed infection	[3+4+3=10]
a.	Write the treatment regimen for this patient.	
b.	What test would you like to perform prior to giving primaquine? Give the rationale for giving primaquine in P.vivax and P.falciparum malaria.	
c.	If the patient had been pregnant, which drugs would you give in her first trimester and which drugs would you give in her third trimester?	
2.	Describe in brief.	[5x5=25]
a.	SGLT-2 inhibitors	
b.	Antimicrobial stewardship program	
c.	Emergency contraceptives	
d.	Bisphosphonates	
e.	Mechanism of action, therapeutic uses and adverse effects of methotrexate	
3.	What are SERMs? Write their therapeutic uses.	[5]

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Invigilator's Sign.....

University Examination

MBBS II Prof.

Subject: Pharmacology-II

Paper Code- MBBS – 232

Multiple Choice Questions

[Time : 15 Minutes]

[Max. Marks: 20]

Note: Write your Enroll. Number on the Question paper. Each MCQ carries a 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	Isoniazid should be given with which of the following to decrease its side effects? (a) Folic acid (c) Thiamine	(b) Pyridoxine (d) Cyanocobalamin
II	Which of the following is NOT associated with glucocorticoid therapy? (a) Glaucoma (c) Hypotension	(b) Increased risk of infections (d) Fractures
III	Drug which reduces the effect of oral anticoagulants? (a) Ampicillin (c) Oral contraceptive pills	(b) Aspirin (d) Cimetidine
IV	Monitoring of heparin therapy is done by (a) Bleeding time (c) International Normalized Ratio	(b) Activated partial thromboplastin time (d) Clotting time
V	The most important toxicity of Amphotericin B is (a) Nephrotoxicity (c) Ocular toxicity	(b) Ototoxicity (d) Hepatotoxicity
VI	Which of the following drugs is NOT classified as a vasodilator (a) Milrinone (c) Minoxidil	(b) Metoprolol (d) Nifedipine
VII	Which of the following antibiotics acts by inhibiting cell wall synthesis? (a) Azithromycin (c) Cefepime	(b) Streptomycin (d) Ciprofloxacin
VIII	Which of the following drugs can reduce insulin resistance? (a) Glipizide (c) Metformin	(b) Sitagliptin (d) Repaglinide
IX	All of the following are advantages of using raloxifene over estrogen in post-menopausal women EXCEPT (a) Reduces fracture rates (c) Does not increase breast carcinoma incidence	(b) Avoids endometrial hyperplasia (d) Reduces incidence of venous thrombosis

X	Preferred drug for treatment of neurocysticercosis (a) Albendazole (b) Itraconazole (c) Metronidazole (d) Mebendazole
XI	Tendinitis is a known adverse effect of (a) Gentamicin (b) Chloramphenicol (c) Ciprofloxacin (d) Cotrimoxazole
XII	Hypothyroidism is a possible consequence of prolonged therapy with (a) Amiodarone (b) Mexiletine (c) Procainamide (d) Sotalol
XIII	Coronary steal phenomenon is seen with: (a) Dipyridamole (b) Digoxin (c) Diltiazem (d) Verapamil
XIV	Ethambutol should be used very cautiously in childhood tuberculosis due to which of its side effect? (a) Ocular toxicity (b) Hepatotoxicity (c) Nephrotoxicity (d) Ototoxicity
XV	Anti viral drug of choice for swine flu:- (a) Acyclovir (b) Oseltamivir (c) Foscarnet (d) Lamivudine
XVI	The antithyroid drug preferred for use during first trimester of pregnancy is (a) Radioactive iodine (b) Methimazole (c) Propylthiouracil (d) Carbimazole
XVII	Which of the following is NOT a rational drug combination (a) Sulfadoxine + Pyrimethamine (b) Methotrexate + Folinic acid (c) Rifampicin + Dapsone (d) Streptomycin + Amphoterecin B
XVIII	Hydrogen peroxide acts by (a) Liberating nascent oxygen (b) Denaturing proteins (c) Detergent-like action (d) Inhibiting bacterial enzymes
XIX	Which of the following DOES NOT act by inhibiting protein synthesis (a) Streptomycin (b) Vancomycin (c) Azithromycin (d) Clindamycin
XX	Which of the following drugs does NOT have anti-emetic properties? (a) Aprepitant (b) Apomorphine (c) Dexamethasone (d) Ondansetron
