



NC-2106000102020101-O

Date of issue : Centre :
Sup. Sign. : Seat No. :

Second Year M. B. B. S. Examination
January - 2022
Pharmacology : Paper-I
(New Curriculum)

Time : Hours]

[Total Marks :

Instructions :

(1)

नीचे दशादिब <input type="checkbox"/> निशानीवाणी विगतो उत्तरवदी पर अवश्य दपवी. Fillup strictly the details of <input type="checkbox"/> signs on your answer book. Name of the Examination : <input type="text" value="Second Year M. B. B. S."/> Name of the Subject : <input type="text" value="Pharmacology : Paper-I"/> Subject Code No. : <input type="text" value="2106000102020101"/> Section No. (1, 2.....) : <input type="text" value="Nil"/>	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text" value="Student's Signature"/>
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- (2) All MCQs are compulsory
(3) Encircle the most appropriate correct option [i.e. (a), (b), (c) or (d)]

1 Multiple choice Questions (MCQs) : **1×20=20**

- (1) A 70 year-old man was administered penicillin i.v. Within 5 minutes, he developed generalized urticaria, swelling of lips, hypotension and bronchospasm. The first choice is to administer :
- (a) Chlorpheniramine inj
(b) Epinephrine inj.
(c) High dose hydrocortisone tablet
(d) Nerbulized salbutamol
- (2) Which of the following agents binds to GABA receptor Chloride channel complex?
- (a) Ethanol (b) Alphaxolon
(c) Zolpidem (d) Buspirone

- (3) Alpha-receptor stimulation includes all of the following effects EXCEPT:
- (a) Relaxation of gastrointestinal smooth muscle
 - (b) Contraction of bladder base, uterus and prostate
 - (c) Stimulation of insulin secretion
 - (d) Stimulation of platelet aggregation
- (4) Which of the following agents enhances the bioavailability of Levodopa in patients with Parkinson's disease:
- (a) Amantadine
 - (b) Ropinirole
 - (c) Entacapone
 - (d) Selegiline
- (5) Mechanism of action of Mianserin:
- (a) Inhibits alpha-adrenergic, H1, and some types of serotonin receptors.
 - (b) Inhibits alpha-adrenergic, H2, and some types of serotonin receptors.
 - (c) Inhibits beta-adrenergic, H1, and some types of serotonin receptors.
 - (d) Inhibits alpha- adrenergic and H1 receptors.
- (6) Omalizumab is indicated for which of the following conditions:
- (a) Moultple myeloma
 - (b) Psoriasis
 - (c) Bronchial Asthma
 - (d) Rheumatoid Arthritis
- (7) Which of the following drugs undergoes Hoffman's elimination?
- (a) Atracurium
 - (b) Pancurinium
 - (c) Mivacurium
 - (d) Vecuronium
- (8) Which of the following is an example of physiological antagonism?
- (a) Heparin-protamine
 - (b) Prostacycline-thromboxene
 - (c) Adrenaline-phenoxybenzamine
 - (d) Physostigmine-Acetylcholine

- (9) Following are used of anticholinesterases. EXCEPT.
- (a) Alzheimer's disease
 - (b) Myasthenia gravis
 - (c) Organophosphorus poisoning
 - (d) Glaucoma
- (10) A 3-year-old child was undergoing squint surgery, initial heart rate was 140 beats per min. after anaesthesia and start of surgery heart rate dropped to 40 beats/min. what should be the next step?
- (a) Stop surgery
 - (b) Decrease plane of anaesthesia
 - (c) Inj glycopyrrolate
 - (d) Inj atropine
- (11) Which of the following does not potentiate the action of neuro-muscular blocker?
- (a) Hypothermia
 - (b) pH changes
 - (c) Halothane
 - (d) Hyperkalaemia
- (12) After which phase of clinical trial a new drug is marketed?
- (a) Phase I
 - (b) Phase II
 - (c) Phase III
 - (d) Phase IV
- (13) For pre-anesthetic medication all drugs can be used EXCEPT.
- (a) Diazepam
 - (b) Glycopyrrolate
 - (c) Metoclopramide
 - (d) Phenobarbitone
- (14) Which of the following drugs is effective in painful tingling sensation due to diabetic neuropathy:
- (a) Aspirin
 - (b) Ibuprofen
 - (c) Gabapentin
 - (d) Tramadol
- (15) Drug of choice for myoclonic seizures is:
- (a) Valproic acid
 - (b) Phenytoin
 - (c) Ethosuximide
 - (d) Carbamazepine

- (16) Which of the following agents is used for acute iron poisoning?
- (a) Penicillamine (b) Deferasirox
(c) Desferioxamine (d) Dimercaprol
- (17) Alkaline diuresis is done for treatment of poisoning due to:
- (a) Barbiturates (b) Morphine
(c) Amphetamine (d) Ethyl alcohol
- (18) Which of the following statements is wrong about Buspirone?
- (a) It doesn't produce withdrawal symptoms on stoppage.
(b) It doesn't produce sedation
(c) It has anticonvulsant action
(d) It has no muscle relaxant activity
- (19) Inverse agonist has
- (a) Affinity but no intrinsic activity
(b) Affinity and submaximal intrinsic activity
(c) Affinity but intrinsic activity with minus sign
(d) Both affinity and maximal intrinsic activity
- (20) A young patient is being treated for myasthenia gravis, which requires frequent adjustment of the optimal dose of Neostigmine. The patient is challenged with Edrophonium to evaluate the effectiveness of the cholinesterase inhibition. Optimal dosing will be indicated by
- (a) An increase in muscle strength
(b) A decrease in muscle strength
(c) No change in muscle strength
(d) Initially increase and later on decrease in muscle strength



NC-2006000102030001

Second Year M.B.B.S. Examination

January / February - 2022

Pharmacology - II : Paper-I

(Old Course)

Time : 2 Hours]

[Total Marks : 40

Instruction :

नीचे दशांशिक निशानीवाणी विगतो उत्तरवही पर अवश्य लिखनी. Fillup strictly the details of signs on your answer book. Name of the Examination :	Seat No. :
Second Year M.B.B.S.	<input type="text"/>
Name of the Subject :	<input type="text"/>
Pharmacology-II : Paper-I	<input type="text"/>
Subject Code No. :	Section No. (1, 2,.....) : 1&2
2 0 0 6 0 0 0 1 0 2 0 3 0 0 0 1	Student's Signature

SECTION - I

- 1 Answer the following: 1×10=10
- Define 'Pharmacovigilance'.
 - Justify : Ipratropium bromide is preferred over atropine in chronic obstructive pulmonary disease.
 - Give reason : Alfa (α)- blockers are beneficial in benign prostatic hypertrophy (BPH).
 - Enumerate inhaled corticosteroids used in bronchial asthma.
 - Write any one anti H. Pylori regimen used for treatment of peptic ulcer.
 - Give one example each of stimulant purgative, osmotic purgative, stool softener and bulk forming laxative.
 - Mention four differences between thiazide and furosemide.
 - Enlist four differences between verapamil and nifedipine.
 - Mention relative activity of adrenaline, noradrenaline, isrenaline and dopamine on subtypes of adrenergic receptors.

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2 Answer any Four of the following: $2 \times 4 = 8$

- (a) Mention clinical significance of plasma protein binding of drugs.
- (b) Enumerate adrenergic agents used as nasal decongestants and mention their adverse effects.
- (c) Describe the pharmacological basis of ACE inhibitors in congestive heart failure.
- (d) Compare and contrast first and second generation antihistaminics.
- (e) Describe in brief pharmacotherapy of seasonal asthma.

SECTION - II

3 Answer any Four of the following: $3 \times 4 = 12$

- (a) Explain : Drugs antagonism with its clinical significance.
- (b) Describe therapeutic uses of beta blockers.
- (c) What is microsomal enzyme induction ? Describe possible consequences of microsomal enzyme induction with examples.
- (d) Describe adverse effects and contraindications of use of digoxin.
- (e) Compare and contrast metoclopramide and domperidone.

4 Answer any Two of the following: $5 \times 2 = 10$

- (a) Classify anticoagulants. Describe mechanism of action, adverse effects, therapeutic uses and contraindications of warfarin.
- (b) Classify anticholinesterases and describe their mechanism of action and therapeutic uses.
- (c) Describe mechanism of action, therapeutic uses and adverse effects of nitrates.



NC-2106000102020102

Second Year M. B. B. S. Examination

December - 2021

Pharmacology : Paper-II

(New Curriculum)

Time : Hours]

[Total Marks :

Instructions :

(1)

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Name of the Examination :	<input type="text"/>
<input type="checkbox"/> Second Year M. B. B. S.	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="checkbox"/> Pharmacology : Paper-II	<input type="text"/>
Subject Code No. :	Section No. (1, 2,.....) : Nil
2 1 0 6 0 0 0 1 0 2 0 2 0 1 0 2	Student's Signature

(2) Answers must be brief, precise and to the point

(3) Give suitable examples and draw figures where necessary

1 Multiple choice questions (MCQs) $1 \times 20 = 20$

2 Answer the following: (Any five) $3 \times 5 = 15$

(1) Enumerate Low molecular weight heparin (LMWH).
What are the advantages and disadvantages of LMWH?

(2) Write pharmacological basis, dose and route of
administration of Hydrochlorothiazide in essential
hypertension.

(3) Name two drugs which are "NO donor". Describe their
mechanisms of NO release.

- (4) Use of 'Long acting, Nitrates + β -blockers' combination in angina rational or not? Justify your answer. Which other drugs are useful in angina ?
- (5) Explain two commonly employed "insulin regimens for diabetes" with suitable diagram.
- (6) Describe the role of "Probiotics" in Diarrhoea.

3 Short essay type questions: (Any three) 5×3=15

- (1) Classify diuretics. Describe therapeutic uses and adverse effects of furosemide.
- (2) Enlist various glucocorticoids and describe their therapeutic uses. Mention ADRs of prednisolone when used for long term therapy.
- (3) Give various ways of classification of antimicrobial agents giving suitable examples. Describe various reasons leading to failure of chemotherapy.
- (4) Enlist various antihypertensive drugs. Describe mechanism of action, therapeutic uses and adverse effects of ACE inhibitors.

4 Answer the following questions based on given case scenario. 10

A 54 years old male patient came to emergency department with complaints of chest discomfort since last half an hour associated with shortness of breath, excessive sweating and anxiety. On examination, patient had tachycardia and ST segment elevation on ECG. Patient was hemodynamically stable and his blood pressure was 172/98 mm Hg. Patient was diagnosed as having acute myocardial infarction.

- (i) Which drugs will you prescribe/ administer in the given case ? 2
- (ii) Describe pharmacological basis, doses and adverse effects of any two selected drugs for this condition. 2+2+2
- (iii) Which drug/s should be prescribed in the given case for secondary prophylaxis ? 2

SECTION - II

5 Answer the following: (Any **five**) 3×5=15

- (1) Briefly describe ~~HAART~~ in relation to HIV infection.
- (2) Enumerate calcium channel blockers. Write their therapeutic uses and adverse effects.
- (3) Classify anti-leprotic drugs. Describe pharmacotherapy of multi-bacillary leprosy as per NLEP guideline.
- (4) Classify antianginal drugs. Explain "Coronary steal" phenomenon in relation with angina and name one drug causing this phenomenon.
- (5) Write short note on Emergency contraception.
- (6) Justify:
 - (i) Imipenem + Cilastin
 - (ii) Sulfadoxine + Trimethoprim combination

6 Short essay type questions: (Any **three**) 5×3=15

- (1) Enlist various drugs from different categories for peptic ulcer. Describe Pharmacotherapy and non-pharmacological measures for recurrent peptic ulcer.
- (2) Enumerate first line and second line Antitubercular drugs. Write the mechanism of action and adverse effects of Rifampin. Write treatment regimen for Multidrug resistant Tuberculosis (MDRTB) as per National Tuberculosis Elimination Programme (NTEP) 2021 guideline.
- (3) Enlist drugs used in the treatment of Malaria. Write Pharmacotherapy of chloroquine resistant *P. falciparum* Malaria as per NVBDCP guideline.
- (4) Discuss drug therapy of various sexually transmitted diseases except HIV/AIDS.

7 Answer the following questions based on given case scenario. 10

A 45 year old obese male came to the OPD with history of increased thirst, increased frequency of micturition, increased appetite since 2 months. On examination his BP was found to be 130/80 mm Hg and Random blood sugar was 220 mg/dl (normal <180 mg/dl) and HbA1c was 9.3 % (normal = 4-6.1 %). Electrolytes, Blood Urea Nitrogen (BUN) and serum creatinine were normal, He has been diagnosed as Type II Diabetes Mellitus.

- (i) Classify the drugs available for the treatment of Type II Diabetes Mellitus. 2
- (ii) What is the drug of choice for treatment of this patient and write its mechanism of action and adverse effects? 3
- (iii) Write one newer group of drugs for above case condition and its mechanism of action and adverse effects. 0.5+1.5+1
- (iv) If above mentioned patient skipped his meal after taking antidiabetic drug, what could happen to him? and how will you manage this condition? 2



Date of issue : Centre :
Sup. Sign. : Seat No. :

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Second Year M. B. B. S. Examination

March - 2022

Pharmacology : Paper-1

(New CBME Curriculum paltern)

Time : Hours] [Total Marks :

Instructions :

(1)

नीचे दशांश देव निशाना-नीवाणी विगतो उत्तरवदी पर अवश्य लखवी. Fillup strictly the details of signs on your answer book. Name of the Examination : Second Year M. B. B. S. Name of the Subject : Pharmacology : Paper-1 Subject Code No. : B - 2 1 0 6 0 0 0 1 0 2 0 2 0 1 0 1 - O	Section No. (1, 2,.....) : Nil	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Student's Signature
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- (2) Write each section in separate answer book.
- (3) In section A all MCQ are compulsory, only one answer will be accepted, no negative marking, correct answer must be marked in OMR sheet with Black pen & submit in first 30 minutes.
- 1 Which of the following drugs is an inhibitor of cytochrome, p450 enzymes?
- (a) Ketoconazole (c) Phenytoin
(b) Rifampicin (d) Phenobarbitone

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- 2 True statement about first order kinetics is
- (a) A constant amount of a drug is eliminated in unit time
 - (b) The half-life increases with an increase in dose
 - (c) The rate of elimination is constant
 - (d) The rate of elimination is proportional to the plasma concentration
- 3 Which of the following is an example of physiological antagonism?
- (a) Heparin-protamine
 - (b) Prostacycline-thromboxene
 - (c) Adrenaline-phenoxybenzamine
 - (d) Physostigmine-Acetylcholine
- 4 For which of the following drugs a warning is written 'to be sold by retail on the prescription of a registered medical practitioner only'
- (a) Schedule H
 - (b) Schedule X
 - (c) Schedule Y
 - (d) Schedule J
- 5 All of the following drugs are used for the treatment of urinary incontinence EXCEPT:
- (a) Oxybutynin
 - (b) Ipratropium
 - (c) Darifenacin
 - (d) Tolterodine
- 6 Action of dopamine in 1-2 mcg/kg/min dose is
- (a) Vasoconstriction
 - (b) Increases renal blood flow
 - (c) Increases cardiac contractility
 - (d) Increases blood pressure
- 7 Drug of choice for attention deficit hyperactivity disorder is:
- (a) Fluoxetine
 - (b) Haloperidol
 - (c) Deriphylline
 - (d) Methylphenidate
- 8 Propranolol is not used in :
- (a) A-V block
 - (b) Hypertention
 - (c) Hypertrophic obstructive cardiomyopathy
 - (d) Migraine

- 9 A 3-year-old child was undergoing squint surgery, initial heart rate was 140 beats per min. after anaesthesia and start of surgery heart rate dropped to 40 beats/min. what should be the next step?
- Stop surgery
 - Decrease plane of anaesthesia
 - Inj glycopyrrolate
 - Inj atropine
- 10 Ketanserin is :
- 5HT_{1B} antagonist
 - 5HT₂ antagonist
 - 5HT_{1A} agonist
 - 5HT_D antagonist
- 11 Which one of the following drug and active metabolite combination is INCORRECT?
- Hydroxyzine-cetirizine
 - Terferadine-fexofenadine
 - Chlorpromazine-promthazine
 - Loratidine-desloratidine
- 12 Which of the following statement about NSAIDs is FALSE?
- They interfere with the antihypertensive effect of diuretics
 - NSAIDs are useful in neuropathic pain
 - NSAIDs should be avoided in renal disease as they can cause nephrotoxicity
 - Many NSAIDs can be used topically
- 13 Prostaglandins are used in all of the following conditions EXCEPT:
- Cervical ripening
 - Post partum haemorrhage
 - Erectile dysfunction
 - Palliative treatment of patent ductus arteriosus
- 14 About Racecadotril true is
- μ receptor agonist- resulting in decrease intestinal secretion
 - due to higher risk of toxic megacolon, paralytic ileus - contraindicated in children
 - high chances of abuse liability
 - pro-drug converted in to enkephalinase inhibitor

- 15 The blood-brain barrier, which restricts entry of many drugs into brain, is constituted by:
- (a) P-glycoprotein efflux carriers in brain capillary cells
 - (b) Tight junctions between endothelial cells of brain capillaries
 - (c) Enzymes present in brain capillary walls
 - (d) All of the above
- 16 A 3 year old child presented to OPD with the symptoms of influenza. Aspirin is contraindicated in this patient because of increased risk of
- (a) Gastric bleeding
 - (b) Thrombocytopenia
 - (c) Fanconi syndrome
 - (d) Reye's syndrome
- 17 The chief advantage of ketorolac over aspirin is that the former
- (a) Can be combined more safely with an opioid such as codeine.
 - (b) Does not prolong bleeding time.
 - (c) Is available in a parenteral formulation that can be used intramuscularly or intravenously.
 - (d) Is less likely to cause acute renal failure in patient with pre-existing renal impairment.
- 18 Which of the following does not potentiate the action of neuro-muscular blocker
- (a) Hypothermia
 - (b) pH changes
 - (c) halothane
 - (d) hyperkalaemia
- 19 Which of the following agent is used for acute iron poisoning?
- (a) Penicillamine
 - (b) Deferasirox
 - (c) Desferioxamine
 - (d) Dimercaprol
- 20 Raju, a 30-year-old male presents to the OPD with sudden onset pain, swelling and redness of the left first metatarsophalangeal joint. A needle aspirate of the joint shows needle-shaped, negatively birefringent crystals. The physician prescribed a drug for the patient, but he came back next day with nausea, vomiting and diarrhea after taking the medication. Which of the following is the most likely drug that was prescribed to this patient?
- (a) Allopurinol
 - (b) Colchicine
 - (c) Steroids
 - (d) Indomethacin

- (4) Write pharmacological basis for :
- (i) Adrenaline in anaphylactic shock
 - (ii) Hyoscine in motion sickness
- (5) Enumerate phases of clinical trial. Explain "Randomization" and "Blinding" in relation to clinical trial.
- (6) Compare and contrast depolarizing and non-depolarizing neuromuscular blockers.

3 Answer the following : (Any three) **5×3=15**

- (1) Write short note on: Inhaled medication in bronchial asthma.
- (2) Define bioavailability. Describe factors which affect bioavailability of a drug.
- (3) Classify drugs used in treatment of Gout. Write phramacotherapy of chronic Gout.
- (4) Classify general anaesthetic agents. Describe pharmacokinetic properties of inhalational anaesthetic agents.

4 Answer the following questions based on given, case scenario. **10**

A 35 years old farm worker was spraying some agricultural insecticide in his farm. After 1 hour he has started developing irritation in eyes, lacrimation, excessive sweating, salivation and blurring of vision. He was brought to the emergency department, where on examination patient was irritable and had bilateral constricted pupil, bradycardia, increased tracheobronchial secretion, hypotension, difficulty in breathing and tremors. He is diagnosed as a case of agricultural insecticide poisoning and treatment was given accordingly.

- (1) Which agents are responsible for this agricultural insecticide poisoning? **1**
- (2) Explain pharmacological basis behind the presentation (sign and symptoms) of this patient. **2**

- (3) Which non-pharmacological measures will you take initially to manage this patient? 2
- (4) Which specific antidotes will you give to this patient? How will you administered these antidote in this patient. 1+2
- (5) Write pharmacological basis of these antidotes in given case condition. 2

SECTION-II

5 Answer the following: (Any five) 3×5=15

- (1) Write short note on antitussive agents.
- (2) Name two Prostaglandin (PG) analogues used in glaucoma. Write pharmacological basis of use of PG analogues in glaucoma.
- (3) Give reasons :
 - (i) Why is Neostigmine preferred over Physostigmine for the treatment of myasthenia gravis?
 - (ii) Why 1-dopa is not useful in drug induced Parkinsonism? Name one drug which can cause parkinsonism?
- (4) What is therapeutic drug monitoring (TDM)? In which situations TDM is not useful?
- (5) Enlist various H₁ anti-histaminics. Write advantages of second generation over first generation antihistaminics.
- (6) Describe how "PSYCHOLOGICAL" and "PATHOLOGICAL" factors can affect response of a drug?

6 Short essay type questions : (Any three) 5×3=15

- (1) Write Pharmacotherapy of migraine.
- (2) What is Disulfiram like reaction? Write pharmacotherapy of methanol poisoning.

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- (3) Mention two therapeutic chelating agents. Explain its mechanism and write therapeutic indications of each agent.
- (4) Classify Nonsteroidal anti-inflammatory drugs (NSAIDs). Describe uses and adverse effects of aspirin.
- 7 Answer the following questions based on given case scenario. 10

A young man in the emergency department of the hospital, is presented with stupor, flaccidity, shallow and occasional breathing, cyanosis, pinpoint pupil, fall in BP, shock and convulsions. History given by his friend revealed that the patient was an opioid addict since 2 years and used to take this agent intravenously. Immediately gastric lavage was performed and other general and specific measures were taken to manage this patient.

- (1) Which principle alkaloid in opium could be responsible for poisoning in above mentioned patient? Describe its pharmacological actions on CNS and enumerate adverse effects and contraindications. 1+2+1+1
- (2) Enlist other opioid analgesics. 1
- (3) Which general and specific measures (antidote) might be taken for this patient? 2
- (4) Why gastric lavage was performed even though this poisoning was due to over consumption of intravenous opioid? Which agent was supposed to be used for gastric lavage in this patient? 1+1



Date of issue : Centre :
Sup. Sign. : Seat No. :

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Second Year M. B. B. S. Examination

March - 2022

Pharmacology : Paper-II (Set-2)

(New CBME Curriculum Pattern)

Time : Hours] [Total Marks : 20+80=100

સૂચના / Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book. Name of the Examination : ☛ <input type="text"/> Second Year M. B. B. S.	Seat No. : <input type="text"/>
Name of the Subject : ☛ <input type="text"/> Pharmacology : Paper-II (Set-2)	<input type="text"/> Student's Signature
Subject Code No. : <input type="text"/> Section No. (1, 2,.....) : <input type="text"/> B - 2 1 0 6 0 0 0 1 0 2 0 2 0 1 0 2 - O	

- (2) Write each section in separate answer book.
- (3) In section A all MCQ are compulsory, only one answer will be accepted, no negative marking, correct answer must be marked in OMR sheet with Black pen & submit in first 30 minutes.

- 1 A 27-year-old female presented to OPD of infertility clinic. She was prescribed bromocriptine. What could be the possible reason?
- (a) Hyperprolactinemia
(b) Polycystic ovarian disease
(c) Hypogonadotropic hypogonadism.
(d) Pelvic inflammatory disease

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- 2 The aminoglycosides are active against anaerobic organisms.
(a) True (b) False
- 3 Fulvestrant is used in the treatment of :
(a) Multiple myeloma (b) Breast Carcinoma
(c) Prostate Carcinoma (d) All of the above
- 4 Apixaban is a new drug, that acts by :
(a) Inhibiting TNF alpha
(b) Inhibiting -coagulation, factor Xa
(c) Inhibiting platelet aggregation
(d) Activating plasminogen
- 5 Most specific antiemetic for chemotherapy induced vomiting is:
(a) Granisetron (b) Tegaserod
(c) Domperidone (d) Doxylamine
- 6 A 30 year old pregnant woman develops tuberculosis. Which of the following antitubercular drugs should not be used?
(a) INH (b) Rifampicin
(c) Streptomycin (d) Ethambutol
- 7 Amphotericin B toxicity can be reduced by?
(a) Incorporating it in liposomal complex
(b) Combining with fluconazole
(c) Combining with flucytosine
(d) Injecting the drug with dextrose
- 8 All of the following drugs are bacteriostatic except :
(a) Vancomycin (b) Clindamycin
(c) Linezolid (d) Tigecycline

- 9 Which of the following drugs is used to prevent HIV transmission from an HIV positive pregnant mother to child?
- (a) Lamivudin (b) Stavudine
(c) Nevirapine (d) Didanosine
- 10 The drug of choice for schistosomiasis is :
- (a) Albendazole (b) Metronidazole
(c) Praziquantel (d) Triclabendazole
- 11 A patient on lithium therapy was found to be hypertensive also. Which of the following antihypertensive drugs is contraindicated in a patient on lithium therapy in order to prevent toxicity?
- (a) Clonidine (b) Beta blockers
(c) Calcium channel blockers (d) Diuretics
- 12 4 year old girl is brought to hospital emergency. She was having vomiting yesterday and was given some injection by local doctor and after that her vomiting subsides. But after 2 hrs she developed neck rigidity, torticollis, teeth clenching and can't speak. Her eyes roll to one direction. So what can be most probable drug for this patient is complains?
- (a) Domperidone (b) Ondansetran
(c) Metoclopramide (d) Granisetran
- 13 Which drug is contra indicated in pregnancy for treatment of constipation?
- (a) Isopaghula (b) Castor oil
(c) Lactulose (d) All of the above
- 14 Following is NOT TRUE about treatment of Diarrhea.
- (a) Loperamide is contra indicated in infective diarrheas.
(b) Racecadotril decrease intestinal hyper secretion and can safely used in children.
(c) Glucose is very important constituent in ORS which helps by only providing energy to body.
(d) When fluid loss is >10% body weight then intravenous fluid therapy is indicated.

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- 15 In following oral antidiabetic drug and mechanism has been paired. Which is the wrong pair?
- (a) Sulfonylurea - stimulate Beta cells of pancreas.
 - (b) Thiazolidinedione - increase peripheral utilization of glucose.
 - (c) α glucoside inhibitors - stimulate α glucosidase enzyme in intestine
 - (d) biguanides - increase peripheral utilization of glucose.
- 16 Under NVBDCP, which artemisinin should be used intravenously for the treatment of severe Malaria?
- (a) Artemether
 - (b) Artesunate
 - (c) Arteether
 - (d) Arterolane
- 17 It is avoided / cautious to use aminoglycosides in following patient.
- (a) Pregnant patient.
 - (b) Patient on Amphotericin-B
 - (c) Patient taking furosemide.
 - (d) All of the above
- 18 Which of the following antitubercular drugs is not hepatotoxic:
- (a) Isoniazid
 - (b) Rifampicin
 - (c) Pyrazinamide
 - (d) Ethambutol
- 19 Which of the following is the only orally effective drug for scabies?
- (a) Permethrin
 - (b) Lindane
 - (c) Ivermectin
 - (d) Crotamiton
- 20 Which of the following agent is used as both antiseptic and disinfectant?
- (a) Carbolic acid
 - (b) Lysol
 - (c) Potassium permanganate
 - (d) Ethylene oxide



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Second Year M. B. B. S. Examination

March - 2022

Pharmacology : Paper-II (Set-2)

(New CBME Curriculum Pattern)

Time : Hours] [Total Marks : 20+80=100

Instructions :

(1)

नीचे दशांश देव <input type="checkbox"/> निशानीवाणी विगतो उत्तरवदी पर अवश्य दामवी. Fillup strictly the details of <input type="checkbox"/> signs on your answer book. Name of the Examination :	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="checkbox"/> Second Year M. B. B. S.	<input type="text"/> Student's Signature
Name of the Subject :	
<input type="checkbox"/> Pharmacology : Paper-II (Set-2)	
Subject Code No. : <input type="checkbox"/> Section No. (1, 2,.....) :	
2 1 0 6 0 0 0 1 0 2 0 2 0 1 0 2	

- (2) Draw labelled diagram wherever required.
- (3) Write to the point.
- (4) Figures to right indicate marks.

SECTION - I

- 1 Multiple choice questions (MCQs) **1×20=20**
- 2 Answer -the following: (Any five) **3×5=15**
 - (1) Write pharmacotherapy of "Typhoid fever".
 - (2) Write treatment of infection caused by pseudomonas.
 - (3) Why folic acid and iron is given during antenatal care even anaemia is not present? What are the indications of parenteral iron therapy in general?
 - (4) Give reasons:
 - (i) Why is mannitol not given in pulmonary oedema?
 - (ii) Why is prednisolone preferred to dexamethasone for maternal illness during pregnancy?

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- (5) Enlist various ACE inhibitors. Write pharmacological basis of ACE inhibitors in Congestive heart failure (CHF).
- (6) Write treatment of Mild to moderate diarrhoea.
- 3** Answer the following: (Any three) **5×3=15**
- (1) Describe drug therapy of Osteoporosis.
 - (2) Enumerate drugs used for treatment of Malaria. Discuss treatment strategies for chloroquine resistant *P. falciparum* malaria.
 - (3) Enlist various type of shock. Outline pharmacotherapy for cardiogenic shock.
 - (4) Enumerate first line and second line Antitubercular drugs. Write the mechanism of action and adverse effects of Rifampin. Write treatment regimen for Multidrug resistant Tuberculosis (MDRTB) as per National Tuberculosis Elimination Programme (NTEP) 2021 guideline.
- 4** Answer the following questions based on given case scenario. **10**
- A 54 years old male patient came to emergency department with complaints of chest discomfort since last half an hour associated with shortness of breath, excessive sweating and anxiety. On examination, patient had tachycardia and ST segment elevation on ECG. Patient was hemodynamically stable and his blood pressure was 172/98 mm Hg. Patient was diagnosed as having acute myocardial infarction.
- (i) Which drugs will you prescribe/ administer in the given case? **2**
 - (ii) Describe pharmacological basis, doses and adverse effects of any two selected drugs for this condition. **2+2+2**
 - (iii) Which drug/s should be prescribed in the given case for secondary prophylaxis? **2**

SECTION II

- 5 Answer the following: (Any five) **3×5=15**
- (1) Enumerate various drugs from different categories for amoebiasis. Discuss briefly the mechanism of action and therapeutic uses of metronidazole in clinical practice.
 - (2) Enlist various diuretics from different categories. Discuss current clinical status of thiazides.
 - (3) Write a note on antimicrobial agents which are useful in Covid 19 disease.
 - (4) Enlist various uterine stimulants. Write advantages of oxytocin for its use in induction of labour.
 - (5) Write uses and adverse effects of hydrocortisone.
 - (6) Enlist various antiplatelet drugs. Describe mechanism, therapeutic uses and adverse effects of any one antiplatelet drug.
- 6 Short essay type questions : (Any three) **5×3=15**
- (1) Describe various methods of administration of contraceptive preparations in female. What are the short term and long term undesirable effects likely to be produced by them?
 - (2) Discuss drug therapy of various sexually transmitted diseases except HIV/AIDS.
 - (3) What are the possible mechanisms by which a microorganism become resistant to antimicrobial agents (AMAs)? Describe the various precautions to prevent emergence of resistance?
 - (4) Enlist various drugs from different categories for peptic ulcer. Describe therapeutic strategy for nonhealing peptic ulcer.

7 Answer the following questions based on given case scenario. 10

A 45 year old obese male came to the OPD with history of increased thirst, increased frequency of micturition, increased appetite since 2 months. On examination his BP was found to be 130/80 mm Hg and Random blood sugar was 220 mg/dl (normal <180 mg/dl) and HbA 1c was 9.3% (normal = 4-6.1 %). Electrolytes, Blood Urea Nitrogen (BUN) and serum creatinine were normal. He has been diagnosed as Type II Diabetes Mellitus.

- (1) Classify the drugs available for the treatment of Type II Diabetes Mellitus. 2
- (2) What is the drug of choice for treatment of this patient and write its mechanism of action and adverse effects? 3
- (3) Write one newer group of drugs for above case condition and its mechanism of action and adverse effects. 0.5+1.5+1
- (4) If above mentioned patient skipped his meal after taking antidiabetic drug, what could happen to him ? and how will you manage this condition? 2