

**PHARMACOLOGY
PAPER- FIRST**

Note: Attempt all questions.
Draw suitable diagrams (wherever necessary)

- Q. 2. Give reasons:** (1 x 4 = 04)
- Latanoprost is used in glaucoma.
 - β blockers are contraindicated in diabetics patients.
 - Aspirin should be discontinued at least 7 days prior to surgery.
 - Fexofenadine is preferred over conventional antihistaminics in allergic conditions.

- Q. 3. Problem based question:** (1 x 4 = 04)
- 45 year old alcohol drunken woman is brought to emergency after an accident. She is conscious but disoriented and complaining of pain of multiple origin. While enroute to emergency department, her pain increased in intensity.
- Which drug should be given for this patient?
 - Write the mechanism of action of that drug.
 - Write the drug interaction of morphine with alcohol.
 - Why morphine is used in acute left ventricular failure?

- Q. 4. Write short notes on:** (2 x 4 = 08)
- Inhalational steroids in bronchial asthma
 - Atypical antipsychotics
 - Drugs used in H pylori - eradication
 - B₂ agonists

- Q. 5. (i)** Classify antidepressant agents. Describe the mechanism of action and adverse effects of Imipramine. (2+2 = 04)
- (ii)** Classify Anticholinesterases. Write mechanism of action, therapeutic uses and adverse effects of Neostigmine. (2+2 = 04)

- Q. 6. Write in brief about:** (2 x 4 = 08)
- Zolpidem
 - Centrally acting muscle relaxants
 - Allopurinol
 - Therapeutic window

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, FEBRUARY/ MARCH - 2019
PHARMACOLOGY
PAPER - FIRST

[Time allotted: Three hours]

SET - A

[Max Marks: 40]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 15 minutes in the OMR sheet) (½ x 16 = 08)

1. Loading dose of a drug primarily depends on:
 - a. Volume of distribution
 - b. Rate of administration
 - c. Clearance
 - d. Half life
2. Short half-life of thiopentone is due to:
 - a. Excretion
 - b. Spontaneous degradation
 - c. Metabolism
 - d. Redistribution
3. Alkalinization of urine is required for decreasing the poisoning due to:
 - a. Barbiturates
 - b. Alcohol
 - c. Amphetamine
 - d. Morphine
4. Physiological antagonism is found in:
 - a. Isoprenaline and salbutamol
 - b. Isoprenaline and propranolol
 - c. Isoprenaline and adrenaline
 - d. Adrenaline and histamine
5. Therapeutic index is a measure of:
 - a. Safety
 - b. Efficacy
 - c. Potency
 - d. Selectivity
6. Short acting mydriatic used in fundoscopy is:
 - a. Atropine
 - b. Cyclopentolate
 - c. Homatropine
 - d. Tropicamide
7. Dopamine is used in shock because of:
 - a. Increased cardiac output
 - b. Renovascular constriction
 - c. Decreased peripheral resistance
 - d. Renovascular dilatation
8. Drug of choice in nocturnal enuresis is:
 - a. Imipramine
 - b. Amoxapine
 - c. Diazepam
 - d. Reboxetine
9. Betaxolol is:
 - a. α blocker
 - b. Calcium channel blocker
 - c. Selective β blocker
 - d. None of the above
10. Which of the following drugs is useful in the treatment of pheochromocytoma?
 - a. Phenylephrine
 - b. Phentolamine
 - c. Propranolol
 - d. Epinephrine
11. Anti-depressant drug that can safely be used in children is:
 - a. Imipramine
 - b. Dothiepin
 - c. Fluoxetine
 - d. Risperidone
12. Which among the following medications has been found to be effective in smoking cessation?
 - a. Bupropion
 - b. Paroxetine
 - c. Buspirone
 - d. Venlafaxine
13. 'Second gas effect' is exerted by which of the following gas when co-administered with halothane?
 - a. Nitrous oxide
 - b. Nitrogen
 - c. Cyclopropane
 - d. Helium
14. Which of the following drugs can cause hypotension by release of histamine from mast cells?
 - a. Aspirin
 - b. Morphine
 - c. Procaine
 - d. Sulfadiazine
15. The antidote of choice in paracetamol poisoning is:
 - a. Flumazenil
 - b. Sodium bi-carbonate
 - c. N-acetylcysteine
 - d. Methylene blue
16. Agonistic action at which of the following adrenergic receptors results in the reduction of aqueous secretion?
 - a. β_1 receptor
 - b. β_2 receptor
 - c. α_1 receptor
 - d. α_2 receptor

**PHARMACOLOGY
PAPER- SECOND**

Note: Attempt all questions.
Draw suitable diagrams (wherever necessary)

- Q. 2. Give reasons:** (1 x 4 = 04)
- Low molecular weight heparins are safer than warfarin
 - Propranolol is used in thyrotoxicosis
 - Cardiac arrhythmias appear when astemizole is given with erythromycin
 - Use of raloxifene in post-menopausal osteoporosis
- Q. 3. Problem based question:** (1+1+1+1 = 04)
- A twenty eight year old female who has recently returned from Indonesia has developed periodic high grade fever associated with chills and rigor. Clinical and laboratory findings include hepato-splenomegaly and presence of malarial parasite in blood smear.
- What drug treatment should be prescribed to her?
 - What prophylactic regimen should she have taken before travelling for her complete protection against malaria?
 - What will you prescribe her if she is a case of chloroquine resistant falciparum malaria?
 - How will you manage this case if the female was pregnant?
- Q. 4. Write short notes on:** (2 x 4 = 08)
- Emergency contraceptives
 - Levofloxacin
 - Biguanides
 - Amiodarone
- Q. 5. (i)** Classify the drugs used in Congestive Heart Failure (CHF). Describe the use & adverse effects of ACE inhibitors in CHF. Write the rationale and mechanism of action of vasodilators in CHF. (1+2+1= 04)
- (ii)** Classify Aminoglycoside antibiotics & write their major pharmacokinetic parameters. Describe therapeutic uses, toxicity and mechanism of development of resistance of aminoglycosides. (1+3= 04)
- Q. 6. Write in brief about:** (2 x 4 = 08)
- Role of nitrates in angina
 - Oral contraceptive pills
 - Valproic acid
 - Thyroid inhibitors

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, FEBRUARY/ MARCH - 2019
PHARMACOLOGY
PAPER - SECOND

[Time allotted: Three hours]

SET - A

[Max Marks: 40]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 15 minutes in the OMR sheet) (½ x 16 = 08)

1. Drug of choice in meningococcal meningitis:
 - a. Penicillin
 - b. Erythromycin
 - c. Septran
 - d. Rifampicin
2. Antileprotic drug effective in lepra reaction also is:
 - a. Clofazimine
 - b. Dapsone
 - c. Rifampicin
 - d. Minocycline
3. Drug effective in treatment of neurocysticercosis:
 - a. Niclosamide
 - b. Albendazole
 - c. Mebendazole
 - d. Pyrantel pamoate
4. One of the following drug is a Class IA antiarrhythmic:
 - a. Sotalol
 - b. Propranolol
 - c. Verapamil
 - d. Quinidine
5. Which of the following drug requires dose adjustment in renal failure?
 - a. Cefoperazone
 - b. Doxycycline
 - c. Streptomycin
 - d. Rifampicin
6. All of the following are indications of bromocriptine **except**:
 - a. Prolactin-secreting adenomas
 - b. Amenorrhea-galactorrhea
 - c. Prolactin deficiency
 - d. Acromegaly
7. Which of the following is **not** an α -Glucosidase inhibitor?
 - a. Acarbose
 - b. Miglitol
 - c. Voglibose
 - d. Pioglitazone
8. Which diuretic could be considered appropriate for combining with ACE inhibitors?
 - a. Spironolactone
 - b. Eplerenone
 - c. Hydrochlorothiazide
 - d. Scopolamine
9. Mechanism antibacterial effect of sulfonamides is:
 - a. Inhibition of dihydropteroate reductase
 - b. Inhibition of bacterial folate synthase
 - c. Inhibition of cyclooxygenase
 - d. Activation of DNA gyrase
10. Bacteriostatic antitubercular drug among the following is:
 - a. Isoniazid
 - b. Rifampicin
 - c. Streptomycin
 - d. Ethambutol
11. All are antiplatelet drugs **except**:
 - a. Aspirin
 - b. Clopidogrel
 - c. Dipyridamole
 - d. Warfarin
12. Clomiphene citrate is used for:
 - a. Mania
 - b. Induction of ovulation
 - c. Depression
 - d. Psychosis
13. Which of the following is a serious adverse effect of zoledronate?
 - a. Acute renal failure
 - b. Ventricular fibrillation
 - c. Peptic ulcer
 - d. Anterior uveitis
14. High ceiling diuretics are useful in the treatment of all of the following **except**:
 - a. Generalised edema
 - b. Cerebral edema
 - c. Acute pulmonary edema
 - d. Pulmonary hypertension
15. Captopril can cause all **except**:
 - a. Decrease in potassium concentration
 - b. Decrease in afterload
 - c. Proteinuria
 - d. Blood dyscrasia
16. Long acting insulin analogue is:
 - a. Insulin glulisine
 - b. Insulin glargine
 - c. Insulin lispro
 - d. Insulin aspart

3
2
5
2
3
1
2

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Draw suitable diagrams wherever necessary.

- Q. 2. Give reasons:** (1 x 4 = 04)
- a. Morphine is used in acute left ventricular failure.
 - b. Benzodiazepines are preferred over barbiturates.
 - c. Neostigmine is used in myasthenia gravis.
 - d. Ondansetron is used as an antiemetic agent.
- Q. 3. Problem based question:** (1 x 4 = 04)
- A 62 yrs old parkinsonian patient was being treated with 250mg OD of L-dopa & 25mg OD of benserzide. He developed glossitis for which he started self-medication with Vit. B-complex tablet. His condition worsened due to Parkinsonism symptoms.
- a. Why patient's condition worsened?
 - b. How this can be prevented?
 - c. What is drug induced parkinsonism, give two examples?
 - d. How will you treat a patient of drug induced parkinsonism?
- Q. 4. Write short notes on:** (2 x 4 = 08)
- a. Transdermal drug delivery system
 - b. Proton pump inhibitors
 - c. SSRIs
 - d. Bioequivalence
- Q. 5. (i)** Write therapeutic classification of antiepileptics. Discuss briefly the mechanism of action, side effects of sodium valproate. Write the management of status epilepticus. (04)
- (ii)** Classify beta-blockers. Write therapeutic uses, adverse effects and contraindications of beta-blockers. (04)
- Q. 6. Write in brief about:** (2 x 4 = 08)
- a. Receptor antagonism
 - b. Succinylcholine
 - c. Halothane
 - d. Prazocin

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, MAY/JUNE-2019

PHARMACOLOGY

PAPER – FIRST

SET - B

[Time allotted: Three hours]

[Max Marks: 40]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 15 minutes in the OMR sheet) ($\frac{1}{2} \times 16 = 08$)

1. Which of the following drug exhibits therapeutic window phenomenon?
 - a. Captopril
 - b. Furosemide
 - c. Imipramine
 - d. Losartan
2. Carbenoxolone is:
 - a. Ulcer healing drug
 - b. Ulcer protecting drug
 - c. Proton pump inhibitor
 - d. Antacid
3. Drug which can be used for closure of patent ductus arteriosus is:
 - a. Alprostadil
 - b. Desmopressin
 - c. Indomethacin
 - d. Diazepam
4. The following drug undergoes autoinduction:
 - a. Clarithromycin
 - b. Carbamazepine
 - c. Ciprofloxacin
 - d. Citalopram
5. Most of the drugs follow which order kinetics:
 - a. Zero order
 - b. First order
 - c. Second order
 - d. Mixed order
6. Therapeutic drug monitoring is required for:
 - a. Salicylic acid
 - b. Lithium carbonate
 - c. Aluminium hydroxide
 - d. Magnesium silicate
7. Ondansetron is:
 - a. 5HT1 antagonist
 - b. 5HT2 antagonist
 - c. 5HT2 agonist
 - d. 5HT3 antagonist
8. Which of the following drugs exhibits therapeutic window phenomenon?
 - a. Captopril
 - b. Furosemide
 - c. Imipramine
 - d. Losartan
9. Gum hyperplasia can be caused by
 - a. Nifedipine
 - b. Phenytoin
 - c. Both of the above
 - d. None of the above
10. Mirtazepine is:
 - a. Antianxiety
 - b. Antidepressant
 - c. Antiepileptic
 - d. Antihypertensive
11. "God's own medicine" is:
 - a. Adrenaline
 - b. Morphine
 - c. Prostaglandins
 - d. Steroids
12. All the following act by modulating Na^+ channels except:
 - a. Nicorandil
 - b. Diphenylhydantoin
 - c. Bupivacaine
 - d. Disopyramide
13. Which of the following drug is **not** metabolised in body?
 - a. Diazepam
 - b. Levodopa
 - c. Streptomycin
 - d. Steroids
14. Which of the following is correct in first order kinetics?
 - a. Fraction of drug eliminated is constant
 - b. $t_{1/2}$ is constant
 - c. Clearance is constant
 - d. Rate of elimination is constant
15. Beta blocker with membrane stabilizing and intrinsic sympathetic activity is:
 - a. Propranolol
 - b. Oxprenolol
 - c. Timolol
 - d. Bisoprolol
16. All the following act by modulating GABA-Cl-channel complex **except**:
 - a. Gabapentin
 - b. Ethosuximide
 - c. Vigabatrin
 - d. Diazepam

**PHARMACOLOGY
PAPER- SECOND**

Note: Attempt all questions.
Draw suitable diagrams (wherever necessary)

- Q. 2. Give reasons:** (1 x 4 = 04)
- Combined oral pills are used for female contraception
 - Tamoxifen is used in breast carcinoma
 - Steroids are gradually tapered
 - Lugol's iodine is used in pre-surgical management of hyperthyroidism
- Q. 3. Problem based question:** (1+1+1+1 = 04)
- A 30 year old male developed fever with headache and mild abdominal pain. He was diagnosed as a case of typhoid
- Name the drug of choice. Write its mechanism of action.
 - What other antimicrobial agents that can be used for typhoid treatment?
 - Write adverse drug reactions of the drug of choice.
 - What is the preferred drug of choice in pregnancy and why?
- Q. 4. Write short notes on:** (2 x 4 = 08)
- Loop diuretics
 - Sotalol
 - Nitroglycerine
 - Digoxin
- Q. 5. (i) Classify anti-hypertensive drugs. Write the mechanism of action, therapeutic uses and adverse effects of ACE inhibitors.** (2+2=04)
- (ii) Describe mechanism of action and therapeutic uses of cephalosporins.** (2+2=04)
- Q. 6. Write in brief about:** (2 x 4 = 08)
- Treatment of urinary tract infection
 - Artemisinin derivatives
 - Centchroman
 - Rifampicin

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PAPER - SECOND**

[Time allotted: Three hours]

SET - A

[Max Marks: 40]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 15 minutes in the OMR sheet) (½ x 16= 08)

1. Lovastatin is:
 - a. An antifungal drug
 - b. HMG-CoA inhibitor
 - c. PPAR activator
 - d. Lipoprotein lipase inhibitor
2. The route of administration of warfarin is:
 - a. Oral
 - b. Intravenous
 - c. Subcutaneous
 - d. Transdermal
3. Which of the following drugs should be avoided in patients with severe grades of CHF?
 - a. ACE inhibitors
 - b. Beta blockers
 - c. Digoxin
 - d. Diuretics
4. Orally active direct thrombin inhibitor is:
 - a. Dabigatan
 - b. Ticagrilor
 - c. Rivaroxaban
 - d. Lepirudin
5. Oral corticosteroids are last resort in drugs in rheumatoid arthritis because they are:
 - a. Least effective
 - b. Short acting
 - c. Quite toxic
 - d. Costly
6. Prolactin levels can be reduced by which of the following drug?
 - a. Bromocriptine
 - b. Haloperidol
 - c. Reserpine
 - d. Chlorpromazine
7. Which of the following insulin is most frequently given intravenously?
 - a. Isophane insulin
 - b. Lente insulin
 - c. Ultralente insulin
 - d. Regular insulin
8. Gonadotropin releasing hormone receptor blocker is:
 - a. Goserelin
 - b. Abarelix
 - c. Leuprolide
 - d. Octreotide
9. Which of the following is effective against pseudomonas?
 - a. Piperacillin
 - b. Phenoxymethyl penicillin
 - c. Cloxacillin
 - d. Oxacillin
10. Which drug can be used to treat hyperkalemia in Addison's disease patient on hydrocortisone?
 - a. Aldosterone
 - b. Dexamethasone
 - c. Fludrocortisone
 - d. Triamcinolone
11. Antitubercular drug contraindicated in pregnancy is:
 - a. INH
 - b. Rifampicin
 - c. Streptomycin
 - d. Ethambutol
12. Which of the following is a fifth generation cephalosporin?
 - a. Ceftriaxone
 - b. Cefaclor
 - c. Cefepime
 - d. Ceftaroline
13. Anorexia is a favorable response in diabetics produced by:
 - a. Pioglitazone
 - b. Glibenclamide
 - c. Sitagliptin
 - d. Repaglinide
14. Drug that is used in osteolytic bone cancer patients to reduce serum calcium level is:
 - a. Zolidronic acid
 - b. Ibadronate
 - c. Calcitriol
 - d. Calcitonin
15. Competitive antagonist of oxytocin is:
 - a. Nafarelin
 - b. Cabergoline
 - c. Atosiban
 - d. Dinoprostone
16. Anticancer drug that produces frequent ototoxicity is:
 - a. Cisplatin
 - b. Methotrexate
 - c. Cyclophosphamide
 - d. Doxorubicin