

**PHARMACOLOGY
PAPER- FIRST**

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

- Q. 2. Give reasons:** (1 x 4 = 04)
- Atropine preferred in treatment of iridocyclitis
 - Phenoxybenzamine is given post operatively in surgical removal of adrenal gland tumour
 - Low dose Aspirin in post MI patients
 - Oximes are contraindicated in carbamate poisonings
- Q. 3. Problem based question:** (1 x 4 = 04)
- A 65-year-old man has undergone cardiac surgery. During surgery patient was given analgesia with Inj. Morphine 30 mg. After 2 hrs of surgery in the postoperative recovery room, He was also given Inj. Morphine 10 mg for pain relief. Thereafter patient was found lethargic and does not answer questions. Patient's respiration was shallow and depressed. On examination pupils were constricted.
- What do you think happened to the patient
 - How will you manage this patient
 - In an opioid dependent patient what medication you can use to treat his dependence and drug abuse
 - Which other drugs could be used in this patient to avoid such a situation
- Q. 4. Write short notes on:** (2 x 4 = 08)
- Ligand gated ion channels
 - Sumatriptan in Migraine
 - Drugs for secondary hyperuricemia
 - Tiotropium bromide in COPD
- Q. 5. (i)** (04)
- Classify sedative hypnotics according to therapeutic uses
 - Write mechanism of action of benzodiazepines
 - Mention advantages of Z-drugs over benzodiazepines
 - Management of overdose of benzodiazepine
- (ii)** (04)
- Classify I.V. anaesthetic agents
 - Explain balanced anaesthesia
 - Write therapeutic uses of NMDA receptor antagonists
 - Enumerate the drugs used for pre-anaesthetic medication
- Q. 6. Write in brief about:** (2 x 4 = 08)
- Pharmacogenetics
 - Tolerance
 - Olanzapine
 - Fexofenadine

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[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. Irreversible inhibitor of cyclooxygenase:
 - a. Indomethacin
 - b. Aspirin
 - c. Ibuprofen
 - d. Piroxicam
2. Antiepileptic drug causing bilateral contraction of visual fields:
 - a. Carbamazepine
 - b. Vigabatrin
 - c. Phenobarbitone
 - d. Lamotrigine
3. Retinoscopy in 5 year old is best done with:
 - a. Atropine
 - b. Homatropine
 - c. Tropicamide
 - d. Cyclopentolate
4. Tolterodine acts by:
 - a. Nicotine receptor stimulation
 - b. Muscarinic receptor stimulation
 - c. Muscarinic receptor inhibition
 - d. α receptor inhibition
5. Malignant hyperthermia is a rare complication of which of the following anesthesia:
 - a. Ketamine
 - b. Thiopentone
 - c. Halothane
 - d. Ether
6. Most common dose limiting adverse effect of Colchicine is:
 - a. Sedation
 - b. Kidney damage
 - c. Diarrhoea
 - d. Muscle paralysis
7. If the total amount of a drug present in the body at a given moment is 2.0 g and its plasma concentration is 25 μ g/ml, its volume of distribution is:
 - a. 100 L
 - b. 80 L
 - c. 60 L
 - d. 50 L
8. Half-life of a drug can be useful to determine:
 - a. Dosage schedule of the drug
 - b. Level of absorption
 - c. Steady state
 - d. Distribution into tissues
9. Drug of choice in intractable hiccoughs is:
 - a. Metoclopramide
 - b. Haloperidol
 - c. Thioridazine
 - d. Chlorpromazine
10. The following disease is **not** worsened by propranolol:
 - a. Variant Angina
 - b. COPD
 - c. Thyrotoxicosis
 - d. Congestive heart failure
11. Maintenance dose of a drug primarily depends on:
 - a. Volume of distribution
 - b. Clearance
 - c. Rate of administration
 - d. Half life
12. What term is used to describe a gradual decrease in responsiveness to a drug, taking weeks to develop?
 - a. Refractoriness
 - b. Cumulative effect
 - c. Tolerance
 - d. Tachyphylaxis
13. Atypical anxiolytic exert their action on:
 - a. BZD receptors
 - b. BZD and 5-HT_{1A}
 - c. 5-HT_{1A}
 - d. 5-HT₂
14. Wearing off and on/off phenomena by levodopa can be reduced by all **except**:
 - a. Adding dopamine agonist
 - b. Adding MAO-B inhibitor
 - c. Adding benzhexol
 - d. Adding carbidopa
15. Advantages of SSRI over TCAs are all **except**:
 - a. No cardiovascular, anticholinergic
 - b. High safety margin
 - c. Lag time of 5 weeks
 - d. Nausea and vomiting
16. Relatively higher dose of theophylline is required to attain therapeutic plasma concentration in:
 - a. Smokers
 - b. Congestive heart failure patients
 - c. Those receiving erythromycin
 - d. Those receiving cimetidine

PHARMACOLOGY
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Q. 2. Give reasons:

(1 x 4 = 04)

- a. Adenosine is preferred in PSVT.
- b. Clavulanic acid is combined with amoxicillin.
- c. Cyclosporine is used in organ transplantation
- d. Mifepristone is used for emergency contraception.

Q. 3. Problem based question:

(1+1+1+1 = 04)

A 65 years old woman has most of the typical features of Grave's disease (Thyrotoxicosis) including exophthalmos and complains of episodic palpitations.

- a. What drugs can be used in the treatment of hyperthyroidism?
- b. Describe their mechanism of action used drugs
- c. How will you manage the patient with drug therapy to achieve euthyroid state?
- d. How will you manage the thyroid crisis if develops in between in such patient?

Q. 4. Write short notes on:

(2 x 4 = 08)

- a. Secnidazole
- b. Bisphosphonates
- c. Local Haemostatics
- d. Superinfections

Q. 5. Structured question:

(i) a. Classify oral hypoglycaemics.

(1+1+1+1 = 04)

- b. Describe the mechanism of action of sulphonylureas.
- c. Mention adverse effects of sulphonylureas.
- d. Write Management of Diabetic ketoacidosis

(ii) Classify antihypertensives. Describe the therapeutic uses and adverse effects of calcium channel blockers.

(2+1+1 = 04)

Q. 6. Write in brief :

(2 x 4 = 08)

- a. Mast cell stabilizers
- b. Write pharmacotherapy of Cerebral malaria
- c. Amelioration of anticancer drug induced toxicity.
- d. Comment on status of ACE inhibitors in CHF.

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

1. Fanconi syndrome is caused by expired:
 - a. Penicillin
 - b. Nalidixic acid
 - c. Rifampicin
 - d. Tetracycline
2. Arthropathy can be caused by:
 - a. Cimetidine
 - b. Cyclophosphamide
 - c. Ciprofloxacin
 - d. Clofibrate
3. In MDT of leprosy Rifampicin is given:
 - a. Daily
 - b. Weekly
 - c. Monthly
 - d. Once in three months
4. Insulin that can be given by i/v route:
 - a. Regular insulin
 - b. Insulin zinc
 - c. NPH
 - d. Ultralente
5. Troglitazone was withdrawn because of:
 - a. Hepatotoxicity
 - b. Renal toxicity
 - c. CVS toxicity
 - d. CNS toxicity
6. Drug that can reduce effect of oral anticoagulants:
 - a. Doxycycline
 - b. Cimetidine
 - c. Ciprofloxacin
 - d. Rifampicin
7. Which of the following acts through nuclear receptors?
 - a. Salicylic acid
 - b. Acetylcholine
 - c. Insulin
 - d. Betamethasone
8. Mesna is used in toxicity of which anticancer drug
 - a. Docetaxel
 - b. Cisplatin
 - c. Ifosfamide
 - d. Mustine
9. Gray baby syndrome occurs with chloramphenicol because:
 - a. Gray colour of baby precipitates phototoxicity
 - b. Metabolic capacity not fully developed
 - c. Renal failure
 - d. Toxic to melanocytes
10. Which of the following drug exhibits therapeutic window phenomenon?
 - a. Captopril
 - b. Furosemide
 - c. Imipramine
 - d. Losartan
11. The following drug does not produce hyperuricemia:
 - a. Ethambutol
 - b. Pyrazinamide
 - c. Sulfinpyrazone
 - d. Hydrochlorothiazide
12. Letrozole is:
 - a. 5 α reductase inhibitor
 - b. Aromatase inhibitor
 - c. Long acting beta agonist
 - d. Leukotriene receptor antagonist
13. Nifedipine is not preferred in hypertensive emergencies in a CVS patient because of:
 - a. Heart blocks
 - b. Reflex tachycardia
 - c. Diastolic cardiac arrest
 - d. Systolic cardiac arrest
14. Drug of choice in acute LVF is:
 - a. Amrinone
 - b. Ramipril
 - c. Furosemide
 - d. Digitalis
15. All of the following beta blockers are used in CHF except:
 - a. Bisoprolol
 - b. Carvedilol
 - c. Metoprolol
 - d. Betaxolol
16. Which of the following antimicrobial has antiplatelet action?
 - a. Streptomycin
 - b. Ceftriaxone
 - c. Amoxicillin
 - d. Ciprofloxacin