

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, DECEMBER-2024**PHARMACOLOGY****PAPER - FIRST****SET - A****[Time allotted: Three hours]****[Max Marks: 100]****Q. 1. Multiple choice questions (Darken the single best response in OMR sheet. Time allotted 20 minutes) (20 x 01 = 20)**

1. Redistribution is responsible for termination of effect of which drug:
 - a. Morphine
 - b. Thiopentone sodium
 - c. Aminophylline
 - d. Nitrous oxide
2. Genetic predisposition is responsible for which ADRs
 - a. Anaesthetic induced malignant hyperthermia
 - b. Serotonin syndrome by SSRI
 - c. antipsychotic induced tardive dyskinesia
 - d. Flu like syndrome by Rifampicin
3. Beta 2 receptor are predominantly present in:
 - a. Juxtra- glomerular apparatus of Kidney tubules
 - b. Ventricles of Heart
 - c. Smooth muscles of Lungs
 - d. Skeletal muscle blood vessels
4. Drug of choice for motion sickness is:
 - a. Hyoscine
 - b. Chlorpromazine
 - c. Ondansetron
 - d. Domperidone
5. Which one is shortest acting Skeletal Muscle relaxant:
 - a. Atracurium
 - b. vecuronium
 - c. d-tubocurarine
 - d. Pancuronium
6. Histamine release occurs with all of the following **except**:
 - a. Morphine
 - b. d-tubocurarine
 - c. Vancomycin
 - d. Probenecid
7. Silodosin is an Uroselective:
 - a. Muscarinic vesicle Reuptake blocker
 - b. Serotonin blocker
 - c. Alpha blocker
 - d. Anticholinergic
8. First dose phenomenon is associated with:
 - a. Bromocriptine
 - b. Propranolol
 - c. Prazosin
 - d. Naloxone
9. Selective B1 blocker with shorter action is
 - a. Metoprolol
 - b. Nabivolol
 - c. Atenolol
 - d. Bisoprolol
10. Which one of the following is labelled as indirectly acting sympathomimetic drug?
 - a. Mephentermine
 - b. Ephedrine
 - c. Metaraminol
 - d. Dopexamine
11. Alpha 2 receptor antagonists are used as:
 - a. Uterine relaxants
 - b. Gastric motility agents
 - c. Nasal decongestant
 - d. Urinary bladder retention
12. Antidote for recovery of skeletal muscle relaxation by Pancuronium is:
 - a. Mepyramine
 - b. Atropine
 - c. Pirenzepine
 - d. Neostigmine
13. Which general anesthetic agent has a strong analgesic property
 - a. Nitrous oxide
 - b. Diethyl ether
 - c. Isoflurane
 - d. Propofol
14. Which of the newer antiepileptic agent has been successfully used in status epilepticus:
 - a. Gabapentin
 - b. Lamotrigine
 - c. Vigabatrin
 - d. Levitiracetam
15. Drug of choice for Trigeminal neuralgia is:
 - a. Baclofen
 - b. Imipramine
 - c. Fluoxetine
 - d. Carbamazepine
16. The standard prototype drug used for Manic Depressive Psychosis is
 - a. Carbamazepine
 - b. Sodium Valproate
 - c. Lithium carbonate
 - d. Venlafaxine
17. All are the advantages of Ketamine as general anaesthetic **EXCEPT**:
 - a. Stability of cardiovascular system
 - b. Strong analgesic action
 - c. Less respiratory depression
 - d. Slow post anaesthetic recovery
18. Buprinorphine acts as:
 - a. Partial agonist at mu and Kappa receptor
 - b. Antagonist at Mu and agonist at Kappa receptor
 - c. Full agonist at Mu and full antagonist at Kappa receptor
 - d. Partial agonist at mu and antagonist at Kappa receptor
19. Which of the following opioid drug is used in alcohol de-addiction:
 - a. Naloxone
 - b. Pentazocine
 - c. Naltrexone
 - d. Nalbuphine
20. Benzodiazepines has all the properties **EXCEPT**
 - a. Sedative-hypnotic
 - b. Amnesic
 - c. Analgesic
 - d. Muscle relaxant

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

- Q. 2. Give reasons:** (5 x 2 = 10)
- Atropine eye drops are most suitable for treatment of uveitis/iritis
 - Beta receptor blockers are contraindicated in peripheral vascular disease
 - Morphine is contraindicated in Head Injury patients
 - Central Anticholinergic drugs in drug induced parkinsonism
 - Alpha blockers are used in the treatment of Benign Hypertrophy of Prostate
- Q. 3. Problem based question:** (4 x 2.5 = 10)
- An adult patient complains of Pain and swelling in peripheral small Joints off and on for 2 months, more so in the morning relieved partially by hot sponging. On examination, redness and tenderness was found in toes. Serum Uric acid was raised to 10mg % and was diagnosed to be suffering from gout.
- What drug(s) can be started to take care of the initial symptoms, write route, dose, frequency and duration of treatment?
 - What will be the long term strategy to treat the patient and how?
 - What other nutritional, and other instructions need to be given to the patient regarding prevention of acute gouty arthritis?
 - Name five drugs that can raise serum uric acid levels.
- Q. 4. Write briefly on:** (4 x 6 = 24)
- Zero order kinetics
 - Treatment of open angle glaucoma
 - Teratogenicity with examples
 - Discuss the barriers to implementation of healthcare as a universal right.
- Q. 5. Structured question:**
- (i) Classify drugs used in endogenous depression. Describe the mechanism of action, therapeutic uses and adverse effects of Tricyclic antidepressants. (10)
- (ii) Classify antihistaminics. Compare and contrast first generation and second generation antihistaminics. Enumerate the therapeutic uses of antihistaminics and explain the basis for choosing first or second generation antihistaminic in each condition. (2+2+6=10)
- Q. 6. Describe the rationale and status of drugs used in the given condition:** (4 x 4 = 16)
- Proton pump inhibitors in peptic ulcer
 - Edrophonium in Myasthenia Gravis
 - Methyl Xanthines in Bronchial asthma
 - 5HT₃ antagonist as anti-emetic agents in Cancer Chemotherapy
