

(B)

Uses:

Succinylcholine has a rapid onset of action and blocks respiratory muscles and as a result it is used when rapid endotracheal intubation is required during induction of anesthesia. also used during electroconvulsive shock treatment.

Pharmacology & Therapeutics (CNS) Total Marks: 40

- 1. Explain Mechanism of action of sedative and hypnotics.
- 2. Give treatment of Barbiturates poisoning.
- 3. Enumerate selective serotonin reuptake inhibitors (SSRI).
- 4. Give uses & A/E of succinylcholine.
- 5. Classify anti-Parkinsonian drugs.
- 6. Explain why carbidopa is given in combination with levodopa.
- 7. Enumerate I/V Anesthetic.
- 8. Give advantages & disadvantages of halothane & enflurane.
- 9. a) Enumerate Atypical antipsychotic drugs.
- 10. b) Give mechanism of action & adverse effects of carbamazepine.
- 11. Explain mechanism of action of morphine.
- 12. Give depressant actions of morphine.
- 13. What is the drug treatment of morphine poisoning.
- 14. a) Enumerate anti epileptic drugs.
- 15. b) Give clinical uses of Gabapentine & Phenytoin.

Mechanism of Action of benzodiazepine  
 Treatment includes supportive care and gastric decontamination if for recent ingestion.  
 Enhancement of excretion of  
 voltage gated channels and ↓ glutamate release  
 Sodium Hypo-natremias Ataxia  
 diplopia, headache, nausea  
 drug interaction  
 Naloxone antagonizes the adverse effects caused by opioids such as hypotension, depressed breathing.

adverse effects of Succinylcholine.  
 Hyperthermia.  
 Hyperkalemia.  
 Apnea.

Gabapentine is used to treat epilepsy, nerve pain following shingles (caused by herpes zoster). Gabapentin is also an anti convulsant.

- QNo 6 (b) →
- i) Respiratory depression
  - ii) Slow GI transit.
  - iii) Sedation
  - iv) Development of tolerance.

NAFEES BHATI

Adverse effects of succinylcholine

- are:
1. Hyperkalemia.
  2. Muscle pain.
  3. ↑ intragastric and intraocular pressure.

SRI QNo 2 (A) → Fluoxetine, paroxetine, citalopram  
 MAO → Block 5HT transport  
 Uses → Major depression, Anxiety disorders, OCD  
 Adverse effect → Sexual dysfunction, Weight loss.

QNo 2 (B)

Pharmacology & Therapeutics

SEQ's

Test: CNS II

Total Marks: 35

Time Allowed: 1hr

- |    |  |     |
|----|--|-----|
|    |  | 3.5 |
| 1. | a) Give Stimulant and Depressant actions of Morphine?  | 3.5 |
|    | b) Give indications contraindications & Adverse Effects of Morphine?                               | 3.5 |
| 2. | a) Enumerate <u>Neuromuscular Blockers</u> ?   |     |
|    | b) Compare and contrast between <u>depolarizing and non- depolarizing neuromuscular blockers</u> ? | 3.5 |
| ✓  | a) Classify drugs used for <u>treatment of Bronchial Asthma</u> ?                                  | 3   |
|    | b) Write down MOA and Adverse Effects of Theophylline?   | 4   |
| ✓  | a) Enumerate drugs used for treatment of Parkinsonism?   | 4   |
|    | b) Explain why Carbidopa is given in combination with Levodopa?                                    | 3   |
| ✓  | Write short notes on:  |     |
|    | a) MOA and Uses of Aspirin   | 2   |
|    | b) Difference between 1 <sup>st</sup> & 2 <sup>nd</sup> Generation Antihistaminic drugs            | 1   |
|    | c) Uses of Prostaglandins  | 2   |
|    | d) MOA and Adverse Effects of Allopurinol  | 2   |

*Nafis*



# QUESTIONS/ASSIGNMENTS - 5<sup>th</sup> ROUND

## Central Nervous System & NSAIDS (MBBS/3<sup>rd</sup> YEAR)

- 122 Lippincot
- 123 Lippincot
- 126 Lippincot
- 203 Kat
- 210 Katzung
- 211 Katzung
- 217 Katzung
- 220 Katzung
- 223 Katzung
- 225 Katzung
- 227 Katzung
- 237 Katzung
- 242 Katzung
- 247 Katzung
- 249 Kat
- 258 Kat
- 270 Katzung
- 274 Katzung
- 278 Katzung
- 166 Lippincot (Lipin)
- 282 Katzung
- 326 Katzung
- 326 Katzung
- 321 Katzung
- 326 Katzung
- 1) Describe Mechanism of action of Benzodiazepines. What are their clinical uses.
- 2) How does Buspirone differ from the conventional sedative hypnotics. Describe the development of tolerance and dependence of sedative hypnotics. What is withdrawal syndrome? How is it managed?
- 3) What are the two pathways involved in metabolism of alcohol? Describe pharmacological effects of alcohol on CVS and CNS? What is fetal alcohol syndrome?
- 4) How alcohol withdrawal syndrome is managed? Write down therapeutic classification of antiepileptic drugs.
- 5) What is Mechanism of action of phenytoin? What are its adverse effects? Describe therapeutic uses and adverse effects of valproic acid.
- 6) What is MAC value? Name drugs used for induction of general anesthesia. What is malignant hyperthermia? Compare and contrast halothane with Nitrous oxide.
- 7) Classify local anaesthetics. Describe Mechanism of action and adverse effects of Lidocaine.
- 8) Describe Mechanism of action of tubocurarine and Succinylcholine. What are clinical uses of neuromuscular blocking drugs?
- 9) Describe autonomic effects of neuromuscular drugs in tabulated form.
- 10) Enumerate four drugs used for treatment of parkinsonism. What is the mechanism of action of levodopa? What is the rationale of combining levodopa with carbidopa?
- 11) What is the MOA and adverse effects of amantadine. Write names of typical and atypical antipsychotics: What is extrapyramidal syndrome? How is it managed?
- 12) Describe adverse effects of antipsychotic drugs related to ANS, CNS and endocrine system.
- 13) What are the clinical uses and adverse effects of lithium. Classify anti depressant drugs. Describe MOA of Tricyclic anti depressants (TCA) and SSRI's.
- 14) Explain the result of concurrent administration of MAO inhibitors and TCA's. What are the adverse effects of SSRI's, SNRI's and TCA's.
- 15) Classify opioid analgesics. Describe Mechanism of action and various pharmacological effects of morphine.
- 16) Describe the role of opioid agonists as antitussives.
- 17) What is MOA of felbamate. Describe clinical uses of topiramate.
- 18) What are various drugs used as spasmolytics. What is their relevant site of action in spinal cord and skeletal muscle.
- 19) Explain the pharmacological basis of:  
1) Aspirin induced nephropathy 2) NSAIDS induced gastric ulcer
- 20) Write down the dose dependant pharmacological effects of aspirin. What are clinical uses of prostaglandins. How acetaminophen toxicity is managed.
- 21) Describe the mechanism of action and clinical uses of ALLOPURINOL.
- 22) Enumerate four disease modifying anti rheumatic drugs (DMARDs). What are various adverse effects of methotrexate.

Pharmacological effects of morphine:  
Severe pain  
Anesthesia  
Dependence maintenance

MUGGET ANSWER

DEPARTMENT OF PHARMACOLOGY  
3<sup>rd</sup> year MBBS  
(SEQ's CNS and Chemo)

Max Marks: 70  
mins

Time Allowed: 1 hour 10

1. a) Name at least four SSRIs, what is the reason of preferring SSRIs over tricyclic antidepressants. 2+2 2
- b) Explain the result of concurrent administration of MAO inhibitors and TCA's. 2
- c) How does succinylcholine causes skeletal muscle relaxation? 2
2. a) What are the major opioid receptors and their proposed actions. 3
- b) Write down clinical uses of morphine. 3
- c) Diacetylmorphine is very good analgesic, which drug is used to reverse its toxicity what is the MOA of its antidote? 2
3. a) Enumerate atypical antipsychotics. What are their possible adverse effects due to blockage of various postsynaptic receptors. 2+3
- b) Why regular monitoring of blood count is required during clozapine administration? 1
- c) Name uricosuric agents. Give Mechanism of action of Allopurinol. 3
4. a) Write down the advantages and disadvantages of combination of various antibiotics with examples. 4
- b) A 22 years old male patient is suffering from gonorrhea for which he is prescribed penicillin G. Describe its antibacterial spectrum and adverse effects. 5
5. a) Explain the basis for the concomitant use of penicillin's and clavulanic acid. 3
- b) Enumerate four drugs used for the treatment of infections caused by Methicillin resistant staphylococcus aureus (MRSA). 2
- c) Classify Cephalosporins according to generations. 4
6. a) A 5 years old boy presented with paroxysmal bout of non productive cough with a characteristic whoop for 5 days. He was prescribed a macrolide. What is MOA of this group of agents. Name two other group of drugs that bind to same target site. 2+2
- b) Give mechanism of action and adverse effects of ciprofloxacin. 5
7. a) Enumerate Aminoglycosides. What are the basis of once daily dosing of this group of agents? 4
- b) Write down the antibacterial spectrum of tetracyclines. 5
8. a) A 20 years old male is having an ulcer on his leg due to some fungus. What are various types of azoles which can be used against it. 3
- b) Write down the clinical uses and adverse effects of amphotericin B. 4
- c) What are the advantages of using liposomal formulation of amphotericin B. 2