

**Time: Three Hours****Max. Marks: 100****PHARMACOLOGY – PAPER I (RS-4)****Q.P. CODE: 1028****(QP contains two pages)**

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

**LONG ESSAYS****2 x 10 = 20 Marks**

1. Define Bioavailability. Discuss the factors affecting bioavailability of a drug administered orally.
2. A forty-five-year-old farmer was brought to the hospital with breathlessness, lacrimation, bowel and bladder incontinence. A diagnosis of Organophosphorous poisoning was made.
  - a) Outline the management of this patient.
  - b) Mention the specific antidotes useful in this patient and explain the rationale of using them

**SHORT ESSAYS****8 x 5 = 40 Marks**

3. What is microsomal enzyme induction? Explain its consequences with any two examples
4. Mention any three Atropine substitutes and explain their therapeutic uses
5. Write the mechanism of action and therapeutic uses of Benzodiazepines
6. Write the mechanism of action, adverse effects and therapeutic uses of Sodium Valproate
7. Discuss the various techniques of local anaesthesia
8. A 25-year-old computer engineer presents with episodes of unilateral pulsatile headache preceded by photophobia and vomiting for the past few months. A diagnosis of Migraine was made. She was prescribed Sumatriptan. Explain the mechanism of action and contraindications for Triptans
9. A 52-year-old lady, a known asthmatic presents to the hospital with acute breathlessness and wheeze. A diagnosis of Status asthmaticus (**Acute severe asthma**) was made. Discuss the pharmacotherapy of Status asthmaticus (**Acute severe asthma**)
10. Write the mechanism of action and therapeutic uses of Omeprazole

**SHORT ANSWERS****10 x 3 = 30 Marks**

11. What is Teratogenicity? Mention two drugs causing teratogenicity with their teratogenic effects
12. List three classes of drugs with a suitable example for each used in Chronic simple (open angle) Glaucoma
13. Write three advantages of Selective serotonin reuptake inhibitors over Tricyclic antidepressants
14. Write the rationale of using Morphine in acute left ventricular failure
15. Aspirin causes gastric mucosal damage. Explain
16. Name three Antitussives
17. Rationale of using Ondansetron in cancer chemotherapy induced vomiting
18. Mention three advantages of Halothane as general anaesthetic agent
19. Name three drugs obtained from plant sources
20. List three uses of Dimercaprol

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## Multiple Choice Questions

**10 x 1 = 10 Marks**

- 21 i) The therapeutic index of a drug indicates its  
A. Safety  
B. Efficacy  
C. Potency  
D. All of the above
- 21 ii) Which of the following drug undergoes Hofmann elimination?  
A. Atracurium  
B. Pancuronium  
C. Vecuronium  
D. Rocuronium
- 21 iii) The mydriatic with quickest and briefest action is  
A. Atropine  
B. Homatropine  
C. Cyclopentolate  
D. Tropicamide
- 21 iv) Ethanol is administered in methanol poisoning to  
A. Correct acidosis caused by formic acid  
B. Prevent seizures due to methanol  
C. Compete with methanol for alcohol dehydrogenase  
D. Increase generation of formaldehyde
- 21 v) The agent which can reverse the sedative action of Benzodiazepines is  
A. Caffeine  
B. Doxapram  
C. Acetyl cysteine  
D. Flumazenil
- 22 i) The standard drug therapy for Parkinson's disease is  
A. Pyridoxine  
B. Dopamine  
C. Levodopa + Carbidopa  
D. Dopamine + Pyridoxine
- 22 ii) The prostaglandin analogue used in Peptic ulcer disease is  
A. Misoprostol  
B. Carboprost  
C. Latanoprost  
D. Travoprost
- 22 iii) The class of drug **NOT** used in the treatment of bronchial asthma is  
A. Beta 2 agonists  
B. Corticosteroids  
C. Methylxanthines  
D. Cholinesterase inhibitors
- 22 iv) Oral rehydration therapy has one of the following beneficial effects  
A. Stops diarrhoea  
B. Restores hydration and electrolyte balance  
C. Hastens the clearance of enteropathogens  
D. Avoids the need for specific antimicrobial therapy
- 22 v) Drug used in treatment of scorpion sting is  
A. Pralidoxime  
B. Pramipexole  
C. Prazosin  
D. Propylthiouracil

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