

**Time: Three Hours****Max. Marks: 100 Marks****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. Enumerate various routes of drug administration with suitable examples. Write the advantages and disadvantages of intravenous route
2. A 20 year old male presents to hospital with history of three episodes of seizures in the last two weeks. A diagnosis of generalised tonic clonic seizure was made
  - a) Mention Four groups of drugs that can be used in this patient giving one example for each group.
  - b) Describe the Mechanism of action, adverse effects and uses of any one drug

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

3. Inhalational Glucocorticoids in Bronchial asthma
4. Therapeutic uses and adverse effects of Alpha blockers
5. Drug treatment for acute congestive glaucoma
6. Treatment of organophosphorus compound poisoning
7. Mechanism of action, uses and adverse effects of Succinylcholine
8. Discuss Drug antagonism with suitable examples
9. A 22 year old lady presents with unilateral throbbing headache, nausea and photophobia since 2 days. A diagnosis of migraine was made. She was prescribed Sumatriptan.
  - a) Explain the mechanism of action of Sumatriptan.
  - b) Enumerate the adverse effects and contraindications of Sumatriptan.
10. 25 year old lady complaints of nausea and vomiting during bus travel. A diagnosis of motion sickness was made.
  - a) Mention two different groups of drugs useful in the treatment of this patient?
  - b) Explain the mechanism of action of each group.

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

11. Define Plasma Half life. Mention its significance.
12. Write three advantages of atypical antipsychotics over conventional antipsychotics
13. Rationale of using morphine in acute left ventricular failure
14. Rationale of using ethyl alcohol in methyl alcohol poisoning
15. Rationale of using Neostigmine for Postoperative decurarization
16. Aspirin is contraindicated in patients with Peptic ulcer. Give reasons
17. Rationale of combining Salmeterol with Fluticasone in Bronchial asthma
18. Name three bulk purgatives
19. Drug treatment of Acute Iron poisoning
20. What is Pharmacogenomics? Give two examples.

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## Multiple Choice Questions

**10 x 1 = 10 Marks**

- 21 i) A 65 year old woman with urinary tract infection was given Gentamicin 150 mg intravenously. The plasma concentration was found to be 3mg/L after 20 mins. The apparent volume of distribution is
- 3 L
  - 50 L
  - 0.1 L
  - 150 L
- 21 ii) Prostaglandin analogue used in postpartum haemorrhage is
- Latanoprost
  - Gemeprost
  - Carboprost
  - Epoprostenol
- 21 iii) Antidote used in Benzodiazepine toxicity is
- N-acetylcysteine
  - Flumazenil
  - Naloxone
  - Pethidine
- 21 iv) Montelukast blocks the action of following autacoid
- Prostacyclin
  - Platelet activating factor
  - Angiotensin
  - Leukotriene C4/D4
- 21 v) Sucralfate promotes healing of duodenal ulcer by
- Augmenting gastric mucosal prostaglandin synthesis
  - Coating the ulcer and preventing the action of acid pepsin on ulcer base
  - Inhibiting proton pump
  - Blocking Histamine receptors
- 22 i) Drug useful in the management of malignant hyperthermia
- Halothane
  - Suxamethonium
  - Isoflurane
  - Dantrolene
- 22 ii) Therapeutic uses of atropine are all the following **EXCEPT**
- Glaucoma
  - Organophosphorus poisoning
  - Bradycardia
  - Pre-anesthetic medication
- 22 iii) The therapeutic index of a drug is a measure of its
- Safety
  - Potency
  - Efficacy
  - Utility
- 22 iv) Pharmacovigilance is
- Monitoring sales of drugs
  - Monitoring drug efficacy
  - Detecting, assessment, understanding and prevention of adverse effects or any other drug related
  - Monitoring cost of drugs
- 22 v) A 40 year old male presents with drooping eyelids, difficulty in chewing and swallowing, muscle fatigue. Which drug could be useful to diagnose myasthenia gravis in this patient?
- Atropine
  - Edrophonium
  - Pralidoxime
  - Adrenaline

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