

— Rajiv Gandhi University of Health Sciences, Karnataka
MBBS Phase – II (CBME) Degree Examination - 02-Mar-2022

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. Define Bioavailability? Discuss the factors affecting Bioavailability
2. A 42 years old farmer was brought to casualty with symptoms of irritation of eyes, lacrimation, excessive salivation, blurring of vision, breathlessness, involuntary defecation and urination. Based on these symptoms physician made a diagnosis of acute organophosphorous compound poisoning.
 - a) Discuss the management of Organophosphorous Poisoning
 - b) Enumerate the uses of reversible anticholinesterases

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

3. Drug Synergism with examples
4. Advantages and Four uses of Cardioselective beta blockers
5. Mechanism of action, adverse effects and uses of Phenytoin
6. Pharmacological actions and uses of Aspirin
7. Mention two groups of drugs used as bronchodilators with examples. Describe their mechanism of action.
8. Mention Four atypical antipsychotics. Describe their advantages over conventional antipsychotics.
9. A 70 year old patient suffering from Lung carcinoma with metastases is requesting for analgesics. The doctor decided to prescribe Morphine for pain relief.
 - a) Explain the mechanism of analgesic action of morphine in this patient.
 - b) Mention the contraindications for Morphine.
10. A 55 year old patient complained of dyspepsia and epigastric pain since a month. He underwent endoscopy which confirmed H.Pylori positive peptic ulcer. The physician prescribed anti H.Pylori regimen. Write any two anti H Pylori drug regimens.

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

11. Define Tachyphylaxis. Mention two drugs exhibiting it
12. Advantages of Domperidone over Metoclopramide
13. Mention three techniques of administering Local Anaesthetic agents with one indication for each technique
14. Mention three drugs used for pre-anaesthetic medication
15. Rationale of using Dantrolene in Malignant Hyperthermia
16. Rationale of using Methotrexate in Rheumatoid arthritis
17. Rationale of using Adrenaline in Anaphylactic shock
18. Rationale of using Montelukast in Bronchial asthma
19. Write three rational Fixed dose combination of drugs
20. Mention three uses of d-Penicillamine

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Multiple Choice Questions

10 x 1 = 10 Marks

- 21 i) Low dose of aspirin prolongs bleeding time by selectively inhibiting synthesis of following mediator in the platelets
- ☒ A. Thromboxane
 - ☐ B. 5-Hydroxytryptamine
 - ☐ C. Platelet activating factor
 - ☐ D. Prostacyclin
- 21 ii) Which of the following drug causes Tolerance
- ☐ A. Adrenaline
 - ☒ B. Morphine
 - ☐ C. Dopamine
 - ☐ D. Isoprenaline
- 21 iii) Which of the following is a prodrug of adrenaline used topically in glaucoma
- ☐ A. Brimonidine
 - ☐ B. Dipivefrine
 - ☐ C. Dorzolamide
 - ☐ D. Timolol
- 21 iv) Receptor agonist exhibits
- ☐ A. Affinity, but no intrinsic activity
 - ☐ B. Intrinsic activity, but no affinity
 - ☒ C. Both affinity and intrinsic activity
 - ☐ D. Neither affinity nor intrinsic activity
- 21 v) The following mydriatic does not produce cycloplegia
- ☒ A. Phenylephrine
 - ☐ B. Tropicamide
 - ☐ C. Cyclopentolate
 - ☐ D. Homatropine
- 22 i) Bronchodilator which requires Therapeutic drug monitoring is
- ☐ A. Salbutamol
 - ☐ B. Theophylline
 - ☐ C. Formeterol
 - ☒ D. Ipratropium Bromide
- 22 ii) Primary mechanism of action of diazepam is
- ☐ A. Dopamine antagonism
 - ☐ B. Adenosine antagonism
 - ☒ C. GABA facilitatory action
 - ☐ D. 5-HT antagonism
- 22 iii) Which of the following is not useful in treating drug induced Parkinsonism
- ☒ A. Levodopa
 - ☐ B. Biperiden
 - ☐ C. Procyclidine
 - ☐ D. Trihexyphenidyl
- 22 iv) Local anaesthetics act by blocking neuronal
- ☒ A. Sodium channel
 - ☐ B. Calcium channel
 - ☐ C. Chloride channel
 - ☐ D. Potassium channel
- 22 v) Purgative used in the management of hepatic encephalopathy is
- ☐ A. Bisacodyl
 - ☐ B. Liquid Paraffin
 - ☐ C. Methylcellulose
 - ☒ D. Lactulose