

**Time: Three Hours****Max. Marks: 100 Marks****PHARMACOLOGY – PAPER II (RS-4)****Q.P. CODE: 1029****(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. Classify Penicillins. Describe the mechanism of action, adverse effects and therapeutic uses of Benzyl Penicillin
2. A 58 year old known diabetic was brought to hospital with mental confusion, vomiting, pain abdomen and rapid breathing. He had fruit scented breath. His Random blood sugar was 320 mg/dl with ketone bodies in the urine. He was diagnosed to be suffering from Diabetic ketoacidosis.
  - a) Outline the management of this patient
  - b) Mention the adverse effects of Insulin
  - c) Enumerate the therapeutic uses of Insulin

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

3. Mechanism of action, therapeutic uses and adverse effects of Rifampicin
4. Therapeutic uses of Glucocorticoids
5. Mechanism of action, Advantages and Disadvantages of Radioactive Iodine
6. Pharmacological actions, Uses and adverse effects of Nifedipine
7. Mechanism of action, therapeutic uses and adverse effects of Vinca Alkaloids
8. Role of Nitroglycerine in the management of Myocardial Infarction
9. A 78 year old patient presents to hospital with pain and swelling in the calf region of right leg. He was bed ridden for 3 months following a surgery. Detailed investigation revealed Deep vein thrombosis. After initial therapy with Heparin, he was discharged with a prescription of Warfarin.
  - a) What is the rationale of using Warfarin in this patient?
  - b) List the adverse effects and therapeutic uses of Warfarin.
10. A 70 year old male presents to hospital with acute breathlessness. He has pedal oedema, engorged neck and distended abdomen. A diagnosis of heart failure was made. Frusemide was administered to this patient.
  - a) Explain the rationale of using frusemide in this patient.
  - b) Enumerate its adverse effects and other therapeutic uses.

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

11. Mention three uses of Dapsone
12. Rationale of combining Trimethoprim with Sulfamethoxazole
13. Why Tetracyclines are contraindicated in pregnancy?
14. Mention three advantages of Azithromycin over Erythromycin
15. Rationale of using Vancomycin in Pseudomembranous enterocolitis. Write two other uses of Vancomycin.
16. Mention three drugs used in Acne Vulgaris
17. Mention three Advantages of Albendazole over Mebendazole
18. Mention three advantages of Low molecular weight Heparins
19. Write two uses of Enalapril. Why Enalapril is contraindicated in pregnancy?
20. Write three indications for parenteral Iron therapy

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## Multiple Choice Questions

**10 x 1 = 10 Marks**

- 21 i) The following drug improves urine outflow in patients with benign prostatic hypertrophy
- Nifedipine
  - Prazosin
  - Atenolol
  - Methyldopa
- 21 ii) Rebound hypertension on sudden withdrawal of medication is associated with
- Hydrochlorothiazide
  - Prazosin
  - Clonidine
  - Lisinopril
- 21 iii) Antidote for Heparin overdose is
- Sodium sulfate
  - Magnesium sulfate
  - Protamine sulfate
  - Copper sulfate
- 21 iv) Hydrochlorothiazide can cause
- Hearing loss
  - Hyperkalemia
  - Hypocalcemia
  - Hyperglycemia
- 21 v) Rapid Acting Insulin is
- Insulin Glargine
  - Insulin Detemir
  - Insulin Lispro
  - Insulin Degludec
- 22 i) Hypothalamo pituitary-adrenal axis suppression during long-term steroid therapy can be minimised by all the following measures **EXCEPT**
- Use of long acting steroids
  - Use of steroids on alternate days
  - Use of steroids for shortest duration
  - Administering entire daily dose in the morning
- 22 ii) A premature neonate suffering from a respiratory infection received high doses of an antibiotic. Over the next two days his condition worsened, he became dull, stopped feeding, developed abdominal distention, became hypotonic and hypothermic. An ashen gray cyanosis developed. A diagnosis of Gray baby syndrome was made. Which of the following antimicrobial agent is responsible for this neonatal syndrome:
- Ampicillin
  - Chloramphenicol
  - Erythromycin
  - Ciprofloxacin
- 22 iii) In the multidrug therapy of leprosy, Rifampin is given
- Daily
  - On alternate days
  - Weekly
  - Monthly
- 22 iv) Folinic acid is used in the treatment of toxicity due to
- Methotrexate
  - Digoxin
  - Cyclophosphamide
  - Iron
- 22 v) Chloroquine is used in all the following conditions **EXCEPT**
- Malaria
  - Extraintestinal Amoebiasis
  - Rheumatoid arthritis
  - Filariasis

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