

**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. A 50-year-old woman visited the general practitioner for annual health screening. Her Blood pressure was 152/90 mm of Hg. She is diagnosed to be suffering from hypertension and is prescribed Angiotensin converting enzyme Inhibitors (ACE inhibitors). Explain the Mechanism of action, therapeutic uses, adverse effects, contraindications of ACE inhibitors
2. Classify Anti-retroviral drugs with suitable examples. Explain the mechanism of action, uses and adverse effects of Zidovudine

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

3. Mechanism of action, Uses and Adverse effects of Organic Nitrates
4. Mechanism of action, Uses and Adverse effects of Thiazide diuretics
5. Mechanism of action, Uses and Adverse effects of Clomiphene Citrate -
6. Therapeutic uses and adverse effects of Glucocorticoids
7. Drug treatment of Thyrotoxic crisis
8. Antibiotics in cancer chemotherapy
9. A 16 year old presents with complaints of weight loss and polyuria. His HbA1C was 9gm%. His fasting blood sugar was 178mg/dl and postprandial blood glucose was 240mg/dl. He was diagnosed as Type 1 Diabetes mellitus.
  - a) Classify the insulin preparations to based on their duration of action.
  - b) What are the advantages of rapid acting insulins?
10. A 38 year old patient presents with cough, fever and sputum since 4 days. A diagnosis of community acquired pneumonia was made and prescribed Levofloxacin.
  - a) Explain the mechanism of action of Levofloxacin.
  - b) Enumerate the adverse effects of Levofloxacin.

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

11. Mention three advantages of Low molecular weight heparins
12. Mention three uses of Tranexamic acid?
13. Rationale of using Spironolactone in Heart failure
14. Rationale of combining Sulfadoxine with Pyrimethamine
15. Mention three drugs effective against Methicillin Resistant Staphylococcus Aureus (MRSA) infections
16. Write three general properties of Aminoglycosides
17. Write one drug regimen for multibacillary leprosy. Why drug combinations are used to treat leprosy?
18. Mention any three groups of drugs used in the treatment for HIV infection *fungal*
19. Name three antiseptics  
Rationale of combining Ceftazidime with Tazobactam

- 21 i) Drug which prolongs survival in heart failure patient is  
A. Digoxin  
B. Furosemide  
C. Enalapril  
D. Amrinone
- 21 ii) Angiotensin receptor blockers are used in all the following conditions, **EXCEPT**  
A. Diabetic Nephropathy  
B. Heart failure  
C. Myocardial infarction  
D. Pregnancy induced hypertension
- 21 iii) Thiazide diuretics and furosemide have opposite effect on the excretion of  
A. Uric acid  
B. Calcium  
C. Magnesium  
D. Bicarbonate
- 21 iv) Absorption of oral iron preparations can be facilitated by co-administering  
A. Vitamin K  
B. Vitamin E  
C. Vitamin A  
D. Vitamin C
- 21 v) Gynaecomastia is induced by all the following **EXCEPT**  
A. Digoxin  
B. Cimetidine  
C. Bromocriptine  
D. Ketoconazole
- 22 i) The route of administration of Insulin is  
A. Intradermal  
B. Subcutaneous  
C. Intramuscular  
D. Oral
- 22 ii) The antimicrobial agent which acts by interfering with DNA function in the bacteria  
A. Amoxicillin  
B. Ciprofloxacin  
C. Streptomycin  
D. Erythromycin
- 22 iii) Topical Sulfonamide used for chemo-prophylaxis in cases of burns is  
A. Sulfasalazine  
B. Silver sulfadiazine  
C. Sulfadoxine  
D. Sulfamethoxazole
- 22 iv) Drug used for radical cure of Vivax Malaria is  
A. Chloroquine  
B. Quinine  
C. Primaquine  
D. Mefloquine
- 22 v) Antitubercular drug "Sterilizing" activity is  
A. INH  
B. Ethambutol  
C. Streptomycin  
D. Rifampicin