

**D.PHARM.
FIRST YEAR
PHARMACEUTICAL CHEMISTRY
ER20-12T**

Duration : 3 hrs.

Full Marks : 80

(PART-A : Objective)

Choose the correct answer from the following:

1×20=20

1. Macrolide antibiotics inhibit protein synthesis by binding with
 - a. 70s subunit
 - b. 30s subunit
 - c. 50s subunit
 - d. None of the above
2. Penicillin was discovered by scientist
 - a. Paul ehrlich
 - b. Gerhard Domagk
 - c. Alexander Fleming
 - d. None of the above
3. The drug which is used as diuretics and hair care product is
 - a. Mannitol
 - b. Mephalañ
 - c. Minoxidil
 - d. Metolazone
4. Which of the following disease is known as juvenile disease?
 - a. Type I diabetes mellitus
 - b. Type II diabetes mellitus
 - c. Type II diabetes mellitus
 - d. Type IV diabetes mellitus
5. Ramipril is an example of
 - a. Beta blockers
 - b. ACE Inhibitors
 - c. Alpha blockers
 - d. Calcium channel blockers
6. Pharmaceutical preparation for Mitomycin is
 - a. Tablet
 - b. Cream
 - c. Capsule
 - d. Injection
7. Flecainide belongs to which class
 - a. Class 1A
 - b. Class 1D
 - c. Class 1C
 - d. Class 1E
8. Mefloquine is
 - a. 4- amino quinoline
 - b. Quinine methanol
 - c. 8- amino quinoline
 - d. 2,4 - diaminopyrimide
9. Which category of Anti Anginal agents produce a side effect commonly known as Monday morning sickness:
 - a. Calcium channel blockers
 - b. Nitro vasodilators
 - c. Potassium channel blockers
 - d. All of the above
10. Alkylating agents exert cytotoxic action by inducing:
 - a. Breakage of DNA strand
 - b. Abnormal pairing of purine and pyrimidine bases
 - c. Cross linking of DNA strands
 - d. All of the above

11. Malaria is a -
- | | |
|----------------------|-------------------|
| a. Bacterial disease | b. Fungal disease |
| c. Protozoal disease | d. Algal disease |
12. Calmpose valium is brand name of _____.
- | | |
|--------------|-----------------|
| a. Diazepam | b. Paracetamol |
| c. Ibuprofen | d. Ketoconazole |
13. A chemical that changes its colour in acidic and basic medium during titration is called.
- | | |
|--------------|------------------|
| a. Indicator | b. Titrant |
| c. Analyte | d. None of these |
14. Which of the following is heteroatom?
- | | |
|------|-------|
| a. B | b. N |
| c. K | d. Na |
15. Nitrous oxide is also known as _____ gas.
- | | |
|----------------|-----------------|
| a. Crying Gas | b. Laughing Gas |
| c. Tearing Gas | d. Fearing Gas |
16. Orally and topically active antifungal drug having allylamine structural feature is
- | | |
|-----------------|-----------------|
| a. Itraconazole | b. Fluconazole |
| c. Terbinafine | d. ketoconazole |
17. Aceclofenac is used in
- | | |
|----------------|-----------------|
| a. Bursitis | b. Toothache |
| c. Spondylitis | d. All of these |
18. Heterocyclic ring present in furosemide is
- | | |
|---------------|-------------|
| a. Pyridine | b. Furan |
| c. Pyrimidine | d. Pyrizine |
19. Which one of the following drug belongs to class nitrosoureas
- | | |
|-------------|----------------|
| a. Thiotepa | b. Lomustine |
| c. Busulfan | d. Decarbazine |
20. Which one of the following is not a first line antitubercular drug?
- | | |
|---------------|-----------------|
| a. ethambutol | b. rifampin |
| c. rifabutin | d. pyrazinamide |

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(PART-B : Short Answers)

[Answer any ten (10) from the following]

[3x10=30]

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| 1. Define virus and write the stages of replication of virus | 1+2=3 |
| 2. Write the difference between sedative and hypnotics. Classify sedative and hypnotics with example | 1+2=3 |
| 3. Explain life cycle of Malaria | |
| 4. What do you mean by First line Anti Tubercular Drug. Why Multi drug Regimen is preferred in tuberculosis treatment. | 1+2=3 |
| 5. Define and Classify Diuretics with Example. | 1+2=3 |
| 6. Define Angina Pectoris and Write the Mechanism of action of Nitrates | 1+2=3 |
| 7. Define limit test and write the principle involved in limit test for iron | |
| 8. Give reason | 1+1+1 |
| a. Why glycerin is used in assay of Boric acid assay | =3 |
| b. Combination antacid is more preferable than individual antacid compound | |
| c. Why formaldehyde is used in assay of ammonium chloride. | |
| 9. Define adrenergic antagonist. Classify them with examples | 1+2=3 |
| 10. Write the labeling requirement and uses of CO ₂ , NO ₂ and O ₂ . | 1+1+1 |
| | =3 |
| 11. Explain acid-base titration with examples. | 3 |

(PART-C : Long Answers)

[Answer any six (6) from the following]

[5x6=30]

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|--|-------|
| 1. Define NSAID. Write the structure, brand name and uses of aspirin and paracetamol | 1+4=5 |
| 2. Define and classify anti hypertensive agent with example | 1+4=5 |

- | | |
|--|-------------|
| 3. Define Diabetes Mellitus. Write its types. Write the role of Insulin. Write the name of secreted hormone of Alpha, Beta and Gamma cells present in Pancreas | 5 |
| 4. Define cancer and classify them. Classify alkylating agent as anti cancer agent and write it's mechanism of action. | 1+2+2
=5 |
| 5. Define Anti Arrhythmic agents. Classify them with example. Write the structure and uses of Procainamide | 1+2+2
=5 |
| 6. Define "Antacid" Classify them with example. Write a short mono-graph of any one drug of it. | 1+1+3
=5 |
| 7. Define Heterocyclic Compound. Write the nomenclature of Heterocyclic Compound accordind to Hantzsch and Widman nomenclature. | 1+4=5 |

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