

**B. PHARM.  
SIXTH SEMESTER  
MEDICINAL CHEMISTRY-III  
BP601T [SPECIAL REPEAT]  
[USE OMR SHEET FOR OBJECTIVE PART]**

**SET  
A**

Duration: 3 hrs.

Full Marks: 75

**( PART-A: Objective )**

Time: 20 min.

Marks: 20

Choose the correct answer from the following:

1×20=20

- How many cyclic rings are present in tetracyclines?  
a. 1  
b. 4  
c. 5  
d. 7
- \_\_\_\_\_ is the precursor molecule for the synthesis of Dapsone.  
a. 3,4,5-Trimethoxybenzaldehyde  
b. Sulphonamide  
c. PABS  
d. 1-Choloronitrobenzene
- Which drug is used in dermatitis?  
a. Sulphafurazole  
b. Dapsone  
c. Mefenide sodium  
d. Prontosil
- Which of the following is not macrolide antibiotics?  
a. Azithromycin  
b. Clarithromycin  
c. Gentamycin  
d. Spiramycin
- Which antibiotic works by inhibiting the cell wall synthesis?  
a. Tetracycline  
b. Miconazole  
c. Refampin  
d. Penicillin
- Which antibacterial works by interfering metabolism?  
a. Acyclovir  
b. Metronidazole  
c. Tetracycline  
d. Amphotericin B
- Acyclovir triphosphate inhibits the viral DNA polymerase by competing with.....  
a. Viral thiamidine kinase  
b. Guanosine mono phosphate  
c. Deoxyguanosine triphosphate  
d. Both A and B
- How many nitrogens are present in acyclovir?  
a. 1  
b. 6  
c. 2  
d. 5
- Hydroxychloroquine is a .....  
a. 4 amino quinoline  
b. 4 amino quinolone  
c. 8 amino quinoline  
d. 8 amino quinolone

10. Which of the following is an analogue of deoxy guanine
- |                |                      |
|----------------|----------------------|
| a. Fanciclovir | b. Acyclovir         |
| c. Methisazone | d. Sulphamethoxazole |
11. Give one example of 8 amino quinoline
- |                |                        |
|----------------|------------------------|
| a. Primaquine  | b. Amodiaquine         |
| c. chloroquine | d. Hydroxy chloroquine |
12. Precursor of isoniazid is.....
- |                  |                  |
|------------------|------------------|
| a. 3 nitrophenol | b. Acetaminophen |
| c. 4 picoline    | d. Nitropropane  |
13. Replacement with 4 thioxo or sulphonyl group in the quinoline leads to
- |                               |                         |
|-------------------------------|-------------------------|
| a. Essential for the activity | b. Abolish the activity |
| c. Loss of activity           | d. None of the above    |
14. Nitration of anthranilic acid gives.....
- |                              |                   |
|------------------------------|-------------------|
| a. Para amino salicylic acid | b. Salicylic acid |
| c. p- nitroanthranilic acid  | d. Urea           |
15. QSAR stands for
- |  |   |
|--|---|
| a. Quality structure action relationship         | b. Quantitative structure activity relationship |
| c. Quantitative structural activity relationship | d. Qualitative structure activity relationship  |
16. F(physiological properties)=.....
- |                        |                           |
|------------------------|---------------------------|
| a. Biological property | b. Physiological action   |
| c. Biological activity | d. Physiological activity |
17. How many models are observed in QSAR- analysis?
- |           |         |
|-----------|---------|
| a. Thirty | b. Four |
| c. Three  | d. One  |
18. Which drug metabolised by acetylation is
- |               |               |
|---------------|---------------|
| a. Rifampicin | c. Ethambutol |
| b. isoniazid  | d. Dapsone    |
19. Which is a natural tetracycline
- |                |                      |
|----------------|----------------------|
| a. Doxycycline | b. Chlortetracycline |
| c. Hexacycline | d. Methacycline      |
20. Beta lactam is also known as
- |                   |                      |
|-------------------|----------------------|
| a. Amino acetyl   | b. Cyclic amide      |
| c. Sulphathiazole | d. None of the above |

**( PART-B : Descriptive )**

Time : 2 hrs. 30 min.

Marks : 35

*[ Answer any seven (7) questions ]*

1. Define antibiotic and beta lactum. Write the types of beta lactum antibiotic with structure. 1+1+3  
=5
2. Write the SAR of penicillin or cephalosporins. 5
3. Explain aminoglycosides. Write the classification of amino glycosides. 2+3=5
4. Write the SAR of tetracyclines. 5
5. Write the classification of antiviral drugs. Write the synthesis of acyclovir. 3+2=5
6. Write the synthesis of followings 2.5+2.5  
=5
  - a. Para amino salicylic acid
  - b. Isoniazid
7. Write the MOA of acyclovir. 5
8. Define prodrugs. Write the classification and application of prodrugs. 1+2+2  
=5
9. Write the SAR of quinolines. 5

**( PART-C: Long type questions )**

*[ Answer any two (2) questions ]*

1. Give a brief account of combinatory chemistry and difference between solid phase and solution phase synthesis. 5+5=10
  
2. Define QSAR and aims and objectives of QSAR. Classify the QSAR models with standard plot diagram. 1+4+5  
=10
  
3. Define sulphonamide and write the SAR of sulphonamide. Classify it and write the synthesis of dapsone. 1+4+3+2  
=10

-- -- --