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Reg. No.....

Name.....

**M.Sc. DEGREE (C.S.S.) EXAMINATION, MAY 2020**

**Fourth Semester**

Faculty of Science

Branch V-B : Pharmaceutical Chemistry

PH 4E 03—MEDICINAL CHEMISTRY

(2012 Admission onwards)

Time : Three Hours

Maximum Weight : 30

**Section A**

*Answer any ten questions.*

*Each question carries a weight of 1.*

1. Name three cholinergic stimulants.
2. What are Neurone blockers ? Give two examples.
3. Give two examples of Nerve gases. What is its mechanism of action ?
4. Name three cholinergic blockers.
5. Give the structure of 2-PAM (Pralidoxime).
6. Give the names of two Curare alkaloids.
7. Draw the aglycone part of Digoxin ? How does the aglycone part of Digitoxine differ from that of Digoxin ?
8. What is the structural difference between nifedipine and amlodipine ?
9. Write down the structure of Sulphanilamide. What is the mechanism of action as a drug ?
10. Draw the structure of Abacavir, an Anti HIVagent.
11. Doxorubicin and Epirubicin are two drugs belonging to the class of Anthracyclins used in the treatment of Cancer. Draw their common structural pattern.
12. What are hypoglycemic agents ? Give two examples.
13. Name the different classes of purgatives in use today.

(10 × 1 = 10)

**Turn over**





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### Section B

*Answer any five questions.*

*Each question carries a weight of 2.*

14. Name a few common Antipsychotics and describe their mechanism of action.
15. Give the synthesis of Acetazolamide.
16. How Haloperidol is synthesized ?
17. What are  $\beta$ -lactam antibiotics ? List a few members. Explain the correlation between the antibiotic activity and structure.
18. Explain the role of statins in the cholesterol control. Name some of the statins used now-a-days. Explain how the statins work.
19. Give the structures of the following fibrates : 1) Fenofibrate 2) Benzofibrate 3) Gemfibrosil.
20. Write down the structures of Coumarin and Indanedione. Name some of the derivatives of the two used as anticoagulants.
21. Give the structure of Taxol ? What is its use as a drug ? Name the plant from which it is obtained.

(5 × 2 = 10)

### Section C

*Answer any two questions*

*Each question carries a weight of 5.*

22. How are the following synthesized? a) Fluvastatin b) Chlorambucil c) Procarbazine.
23. Describe the mechanism of action of the following drugs : a) Methotrexate b) Chlorpromazine c) Lidocaine.
24. What are ANS acting drugs ? How they are classified ? List out the important classes of drugs of this category. Give one example for each category.
25. Classify Diuretics giving examples for each class. Give the mechanism of action of each class.

(2 × 5 = 10)

