



Reg. No
Name

M.Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2021

Fourth Semester

Faculty of Science

Branch V—(B)-Pharmaceutical Chemistry

PH 4E 03—MEDICINAL CHEMISTRY

(2012 to 2018 Admissions—Supplementary/Mercy Chance)

Time: Three Hours Maximum Weight: 30

Section A

Answer any **ten** questions. Each question carries weight 1.

- 1. Name three MAO inhibitors.
- 2. What are Neurone blockers? Give two examples.
- 3. Give two examples of Nerve gases. What is its mechanism of action?
- 4. Name three local anaesthetics.
- 5. Give the structure of 2-PAM (Pralidoxime)
- 6. Give the names of two Rauwolfla 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 Pantaperazole.
- 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 Antitussives? Give two examples.
- 13. Name the different classes of purgatives in use today.

 $(10 \times 1 = 10)$

Turn over





Section B

Answer any **five** questions. Each question carries weight 2.

- 14. Name a few common Antifungal agents and describe their mechanism of action.
- 15. Give the synthesis of Furosemide.
- 16. How Haloperidol is synthesized?
- 17. What are β -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 1) DMT; 2) LSD; and 3) Psilocybin.
- 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 Disopyramide? What is its use as a drug?

 $(5 \times 2 = 10)$

Section C

Answer any **two** questions. Each question carries weight 5.

- 22. How are the following synthesized ? a) Thiotepa; b) Fluvastatin; and c) 5-fluoro uracil.
- 23. Describe the mechanism of action of the following drugs a) Carmustin ; b) Ethacrynic acid ; and c) Omeperazole
- 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.

 $(2 \times 5 = 10)$

