BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)
B. Pharm. Sem-VI : WINTER- 2022
SUBJECT : MEDICINAL CHEMISTRY-III

Day : Friday | Time : 10:00 AM-01:00 PM

Date : 20-01-2023 | **W-20680-2022** | Max. Marks : 75

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Answer to both sections should be written in **SEPARATE** answerbook.

SECTION – I

Q.1 Answer all the questions. **(10x2=20)**

a) Draw the structures of Pyrimethamine and Cycloguanil.
b) Outline scheme of synthesis of acyclovir.
c) Classify antiviral agents with examples.
d) Write applications of pro-drugs.
e) Outline scheme of synthesis of ciprofloxacin.
f) Draw the structures of ethambutol and pyrazinamide.
g) Outline the synthesis of chloroquine.
h) Draw the structures of tetracycline and oxytetracycline.
i) Outline synthesis of chloramphenicol.
j) Draw the structures of any two antiviral agents.

Q.2 Attempt **ANY TWO** from the following: **(2X10=20)**

a) Classify antibiotics with representative structures. Discuss MOA and SAR with suitable examples of cephalosporins.
b) Classify antimalerial agents with representative structures. Discuss MOA and SAR of quinolines with suitable examples.
c) Classify urinary tract anti-infectives with representative structures. Discuss MOA and SAR of quinolones with suitable examples.

SECTION – II

Q.3 Answer **ANY SEVEN** from the following: **(7X5=35)**

a) Classify sulphonamides on the basis of chemical nature. Explain the importance of pKa value in designing effective sulphonamides.
b) Classify anti-amoebic agents on basis of chemical nature. Give the scheme of synthesis of Metronidazole.
c) Write a note on benzimidazole anthelmentics.
d) Discuss chemistry, MOA and uses of Azoles antifungal agents.
e) Define combinatorial synthesis and explain about solid phase synthesis.
f) Give the drugs used as Dihydrofolate reductase inhibitors with examples.
g) Write the principle, advantages and disadvantages of Hansch analysis.
h) Write a note on molecular docking.
i) Explain the role of electronic parameters in QSAR study.

*****