Seat No. _____

HN-BP-601-T

M. P. M. (Sem. VI) Examination

April - 2023

Medicinal Chemistry - III : BP-601-T

Time : **3** Hours / Total Marks : **75**

1 Answer the following questions : **20**

(1) Define and classify antibiotics.

(2) How penicillin and cephalosporins are differing from each other?

(3) Write general structure and mechanism of action of tetracycline antibiotics.

(4) Define and classify prodrugs.

(5) Write structure, use and mechanism of action of Streptomycin.

(6) Write any two-drug structure of antiviral agents with mechanism of action.

(7) Write synthesis of Chloramphenicol.

(8) Define QSAR and Docking in drug design.

(9) Write any two-drug structure of Folate reductase inhibitors.

(10) What mean by Anthelmintics? Give one example of it.

2 Answer the following questions : (any **two**) **20**

(1) Classify Penicillin derivatives with chemical structure in each class. Explain SAR and degradation pathways of penicillin.

(2) What is Combinatorial Chemistry? Explain methods of synthesis involved in combinatorial chemistry.

(3) Write synthesis, mechanism of action and uses of following drugs :

- Sulfacetamide
- Sulfamethoxazole
- Dapsone
- Nitrofurantoin

3 Answer the following questions : (any **seven**) **35**

(1) Write classification and SAR of Cephalosporins.

(2) Explain chemistry of monobactams and tetracyclines.

(3) Explain about Physicochemical parameters used in QSAR.

(4) Write applications of prodrug with examples.

(5) Explain life cycle of malaria and classify anti-malarial agents with example.

(6) Write synthesis of following Synthetic anti tubercular agents: Isoniazid and Para amino salicylic acid.

(7) Classify UTI agents with drug structure and explain SAR of quinolones.

(8) Write chemistry of Anti-protozoal Agents.

(9) Write synthesis, use and mechanism of action of Acyclovir arid Miconazole.
