647510 **MSC4OrgC402x** **Seat No :_____**

M.Sc.(Chem.) Semester - 4 (*CBCS*) Examination
March/April - 2026 (As Per Syllabus Year June-2019)
Chemistry of Synthetic Drugs(Core)

Time: 2:30 Hours **Marks:70**

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1(A) **Answer the following** **(04)**

(1) Give four examples of anticancer drugs with their structures.

Q.1(B) **Answer any two questions out of three.** **(10)**

(1) What are antibiotics? Give synthesis of any one quinolone antibiotics.

(2) Discuss DNA alkylating agents with mechanism

(3) Describe classification of β-lactam antibiotics and give at least three structures of penicillin & Cephalosporium antibiotics.

Q.2(A) **Answer the following** **(04)**

(1) What are Anti arrhythmic Drugs? Give two examples.

(2) Write the structure of the following diuretic drugs:

(i) Indapamide (ii) Chlorthiazide

Q.2(B) **Answer any two questions out of three.** **(10)**

Describe synthesis of following drugs:

(1) Telmisartan

(2) Rosuvastatin

(3) Amlodipine

Q.3(A) **Answer the following** **(04)**

(1) What are the causes of CNS disorder?

(2) What are neurotransmitters? Give structure of (i) GABA (ii) Dopamine

Q.3(B) **Answer any two questions out of three.** **(10)**

(1) Discuss antidepressant agents and give synthesis of any one antidepressant drug.

(2) What is insomnia? Give synthesis of Indiplon.

(3) Describe synthesis of fexofenadine.

Q.4(A) **Answer the following** **(04)**

(1) What are NSAIDs ? Discuss its classification and mechanism of action.

Q.4(B) **Answer any two questions out of three.** **(10)**

Describe synthesis of following drugs:

(1) Indomethacin

(2) antipyrine

(3) Sulindec

Q.5(A) **Answer the following** **(04)**

(1) What is Hyperglycemia? Discuss types of Hyperglycemia.

(2) Explain basal anesthetic drugs.

Q.5(B) **Answer any two questions out of three.** **(10)**

Describe synthesis of following drugs:

(1) Glyburide

(2) Ketamine

(3) Cyclomethycaine

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