

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-VII • EXAMINATION – SUMMER -2022

Subject Code: 2270003**Date: 07/06/2022****Subject Name: Pharmaceutical Chemistry-IX (Medicinal Chemistry-III)****Time: 02:30PM TO 05:30PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Give classification of anticancer agents with at least three drug examples and one structure of each category. **06**
(b) Give SAR of Sulphonamides. **05**
(c) Give structure of the following drugs: (Any five) **05**
i). Sulphacetamide ii). Isoniazid iii). Chlorambucil iv). Mebendazole v). Ketoconazole vi). Pyrazinamide.
- Q.2** (a) Give SAR of Cephalosporins. **06**
(b) Give synthesis, IUPAC name and use of Chloramphenicol OR Chloroquine. **05**
(c) Give explanation with diagram or chart on mechanism of action of any three classes of antifungal agents **05**
- Q.3** (a) Give synthesis and use of: (Any three) **06**
i). Norfloxacin ii). Clotrimazole iii). Albendazole iv). Pyrimethamine.
(b) What do you know about β -lactam antibiotics? Classify Penicillin with at least two drug examples and one structure of each category. **05**
(c) Share your knowledge on MDR-TB and XDR-TB. **05**
- Q.4** (a) Give SAR of Tetracyclines. **06**
(b) Here several name of drugs have been enlisted. Classify them in the category of antiviral, anticancer, antimalarial, antifungal and anthelmintic agents: Mercaptopurine, Flucytosine, Metrifonate, Gancyclovir, Oxiconazole, Primaquine, Rimantadine, Benzotepa, Artemether, Niridazole. **05**
(c) Discuss in detail Macrolide antibiotics OR aminoglycoside antibiotics. **05**
- Q.5** (a) Give synthesis and use of: (Any three) **06**
i). Sulphamethoxazole ii). Ethambutol iii). Amantadine iv). Thiotepa.
(b) Give classification of anthelmintic agents with at least three drug examples and one structure of each category. **05**
(c) What do you know about HIV. Give classification of antiHIV agents with at least three drug examples and one structure of each category. **05**
- Q.6** (a) Give an informative note on antiamoebic agents giving synthesis of metronidazole. **06**
(b) Share your knowledge on molecular modeling. **05**
(c) Write a note on lead identification. **05**
- Q.7** (a) Give a detailed note with diagrammatic picture of parallel synthesis. **06**
(b) Give an informative note on Hansch Linear Free Energy Relationship model of QSAR. **05**
(c) Write a short note on CADD. **05**