

Unique Paper Code : **32173909 (NC)**
Name of the Paper : **SEC- Pharmaceutical Chemistry**
Name of Course : **B.Sc (Prog)**
Semester: **III/V**
Time Duration : **3 Hours**
Maximum Marks: **38**

Attempt four questions in all. All questions carry equal marks.

1. i) How is the fermentation process used in the industrial production of streptomycin?
ii) Explain retrosynthetic approach of any one drug.
(5, 4.5)
2. i) Write down structure of the following:
a) Trimethoprim
b) Acyclovir
c) Phenobarbital
d) Vitamin B-12
e) Dapsone
ii) Differentiate between drug and poison ?
iii) What is the meaning of 'high therapeutic index' ?
(5, 2.5, 2)
3. i) What are antiviral agents? Design synthetic pathway of acyclovir.
ii) Discuss the synthesis of vitamin C and give any two uses.
(5, 4.5)
4. i) Write Short note on any two of the following:
a) HIV – AIDS
b) Vitamin B-12
c) Difference between narcotic and non-narcotic analgesics.
d) Pharmaceutical aids and give their applications
ii) Name different sources of Drugs with suitable example?
(3.5x2, 2)
5. i) Give structure and synthesis of any two sulpha drugs.
ii) Write advantages and disadvantages of herbal medicine.
(3.5 x 2, 2)
6. i) Write uses and abuses of the following drugs:
a) Sulphacetamide
b) Diazepam
c) Citrizine
d) Glyceryl trinitrate
e) Ibuprofen
ii) Define aerobic and anaerobic fermentation. How fermentation is useful for preparation of Glutamic acid?
(5, 4.5)