

Roll No.....

S. No. of Question Paper :
Unique Paper Code : **32173909-OC**
Name of the Paper : **Pharmaceutical Chemistry**
Name of the Course : **B.Sc.(H) Chemistry/B.Sc. Prog. (SEC)**
Semester : **III/V**

Duration: 1.30 Hours

Maximum Marks: 38

(Write your Roll. No on the top immediately on receipt of this question paper)

Attempt any two questions

1. Answer the following:

- (i) Define Sulfa drugs? Give the synthesis of sulfacetamide? (4)
- (ii) What is the full name of 7-ACA? Give its structure? (3)
- (iii) Differentiate between the term affinity, efficacy and potency? (3)
- (iv) What do you understand by 'LD₅₀ and ED₅₀' in drugs? (3)
- (v) What are the therapeutic uses of diazepam? Give its structure? (3)
- (vi) Explain bacteriostatic & bactericidal agents with suitable example. (3)

2. (i) How is the fermentation method useful for the synthesis of citric acid? (4)
- (ii) What is anti leprosy drug? Give the chemical synthesis of Dapsone? (4)
- (iii) Write a short note on one Non-steroidal anti-inflammatory drug. (4)
- (iv) Describe all the steps involved in the 'Drug Development' (4)

(v) Discuss about Retrosynthetic approach in drug discovery with a suitable example. (3)

3 Match the followings: (1x7)

Column A	Column B
Ascorbic Acid	Vitamin B ₂
Streptomyces venezuelae	Streptomycin
Aspergillus niger	Vitamin B ₁₂
Streptomyces griseus	Citric Acid
Ashbya Gossypii	Vitamin C
Cobalt	Ethyl alcohol
Saccharomyces cerevisiae	Chloramphenicol

(iii) Give the full name of followings: (1x4)

(a) HIV (b) TMP (c) AZT (d) CNS

(iii) Differentiate between side effects and toxic effects of medicine? (4)

(iv) Explain the preparation of Ethyl alcohol through anaerobic fermentation. (4)

4. (i) What are essential & non-essential Amino acids? Discuss the synthesis of Lysine amino acid. (5)

(ii) Give a brief account on the SAR activity of penicillin & its structure. (5)

(iii) Explain Antipyretic & Analgesic agents with examples. Give synthesis of one Antipyretic drug. (5)

(iv) Discuss the industrial production of Citric acid through a flow chart. (4)