(ii) Describe the fermentation process for production of any amino acid. (4)

(iii) Differentiate between 'potency' and 'efficacy' of drugs. (1.5)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 1466 C

Unique Paper Code : 32173909

Name of the Paper : SEC: Pharmaceutical Chemistry

Name of the Course : **B.Sc. (Hons) / B.Sc. (Prog)**

Semester : III / V

Duration : 2 Hours Maximum Marks : 38

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **four** questions.
3. Each question carries **9.5** marks.

1. (i) Describe the laboratory synthesis of paracetamol and its mode of action. (4)

(ii) Discuss the production of ethyl alcohol through anaerobic fermentation. (4)

(iii) Differentiate between narrow-spectrum and broad-spectrum antibiotics. (1.5)

2. (i) Explain retrosynthetic approach in drug discovery. Write down retrosynthetic pathway of aspirin. (4)

(ii) Discuss the production of any one dietary supplement through anaerobic fermentation. (4)

(iii) What do you mean by 'High Therapeutic Index'? (1.5)

3. (i) Write short note on 'Lead compound'. (4)

(ii) What are analgesics agents? Give an example and its synthesis. (4)

(iii) What are the side effects of cetirizine and thalidomide? (1.5)

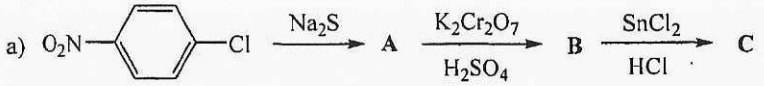
4. (i) Write down the chemical synthesis of sulphacetamide with its therapeutic uses and adverse effects. (4)

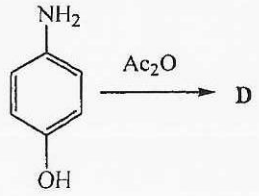
(ii) Match the following : (1×4=4)

Column A	Column B
Mycobactericum laprae	Cephalosporin
Riboflavin	Citric acid
Antibiotic	Laprosy
Aspergillus niger	Vitamin B_{12}

(iii) Write the full name of 7-ACA and draw its chemical structure. (1.5)

5. (i) Mention the structure of the compounds A-D. (4)

a) 

b) 

P.T.O.