(ii) Production of amylase by microorganisms

(iii) Riboflavin production

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5892 **H**

Unique Paper Code : 2534001205

Name of the Paper : Microbial Products in Therapeutics (GE)

Name of the Course : **B.Sc. (H) Microbiology**

Semester : IV

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. (a) Write the producer organisms and the uses of the following :

(i) Streptokinase

(ii) Collagenase

(iii) Methioninase (3×2=6)

(b) Draw a well labeled diagram of continuously stirred tank reactor. (6)

2. Write a short note on the following **(any three)**

(i) Screening for Secondary metabolites

(ii) Fed-batch fermentation

(iii) Anticancer enzymes

(iv) Microbial production of insulin (4×3=12)

3. (a) What is AMR phenomenon? Discuss how Enzybiotics are useful in controlling it. (2+4=6)

(b) Discuss microbial transformation of steroids by dehydrogenation and hydroxylation. (3+3=6)

4. (a) What are probiotic microorganisms? Explain their features and the benefits offered by these microorganisms. (2+4=6)

(b) Write the main producer microorganisms and mode of action of the following antibiotics **(any three)**

(i) Streptomycin

(ii) Cephalosporin

(iii) Griseofulvin

(iv) Vancomycin (2×3=6)

5. Explain the following : (6+6=12)

(i) Solid state fermentation

(ii) Bacto therapy by microbiota transplant

6. Discuss the following briefly : (4×3=12)

(i) Different methods for recovery of microbial products