



GAF-490

Seat No. _____

B. Sc. (Sem. V) Examination

November / December - 2015

Biotechnology : EC - III

(Industrial Biotechnology)

(Elective Course) (Subjective)

Time : 2 Hours]

[Total Marks : 50

- 1 Answer the following: 10
- 1 What is Fermentation?
 - 2 What is Pasteurization?
 - 3 Basic principle in industrial microbiology is
 - a) Suitable growth conditions
 - b) Fermentation
 - c) Providing aseptic conditions
 - d) All of these
 - 4 Who coined the term antibiotic?
 - a) Alexander Fleming.
 - b) S. Waksman..
 - c) Louis Pasteur.
 - d) Edward Jenner.
 - 5 Antibiotics is _____ metabolites.
 - a) Primary.
 - b) Secondary.
 - c) Tertiary.
 - d) Quaternary.
 - 6) For streptomycin production the microorganisms required are
 - a. Streptomyces griseus
 - b. Streptomyces niger
 - c. Saccharomyces cereviceae
 - d. All of these

- 7 Aspergillus niger is used generally for the production of _____.
- 8 For amylase production the microorganism required is _____.
- 9 L. lysine is produced from which Bacteria _____.
- 10 Give Example of Submerged fermentations are _____.
- 2 Short answer : (any Five) 10
1. Which process of downstream recovery is preferably used for extraction of streptomycin from filtrate?
 2. Write the name of bacteria commercially used for the production of L-Lysine.
 3. Which metal ion is required to be absent for good Citric acid fermentation yields?
 4. Write the names of the techniques used for the purification of protease & amylase.
 5. Write the name of organism commercially used for the production of protease.
 6. Write the name of the technique used for the purification of Vitamin B12.
 7. Name the Precursor added in Vitamin B12 fermentation
- 3 Answer any three 30
1. Write a note Microbiology of Amylase production
 2. Write a note on Fermentative production of Citric acid
 3. Explain the recovery of streptomycin
 4. Describe the SCP production
 5. Dual Fermentation of L-lysine fermentation.
-