

INDUSTRIAL & MICROBIAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Comment on preservation.
- 2 What do you mean by media formulation?
- 3 Define solid state fermentation.
- 4 Comment on substrate utilization.
- 5 List out any two antifoam agent.
- 6 Define all disruption.
- 7 Bringout the significance of riboflavin.
- 8 Comment on proteases.
- 9 Enlist the applications of mushroom.
- 10 What is Interferon?

SECTION - B (25 Marks!)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Brief account on strain development.
OR
b Describe the basic design of fermentor.
- 12 a Explain the types of substrate involved in fermentation process.
OR
b Compare batch and fed batch process.
- 13 a Analyse the chemical method of cell disruption.
OR
b Give an account on a) Crystallization b) Drying.
- 14 a Describe the methods involved in lactic acid fermentation production.
OR
b Explain the process involved in glutamic acid fermentation production.
- 15 a Give an account on cheese production.
OR
b Discuss the steps involved in mushroom production.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 46 Discuss in detail about parts and functions of air lift fermentor.
- 17 Describe the process of cellular growth kinetics.
- 18 Analyse the method of separation involved in downstream processing.
- 19 Enumerate the citric acid production and its recovery.
- 20 Explain the production of single cell protein and its applications.