Bachelor of Science (Bio Technology) (Sem.–5)

FERMENTATION TECHNOLOGY

Subject Code :BSBT140-18

M.Code :78351

Time : 3 Hrs.   **Max. Marks :40**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any TWO questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Answer briefly :

1) Define chemotherapeutic products.

2) Name two anti-cancer agents.

3) Define fermentation.

4) What is the role of cell immobilization?

5) Why proteins purification is required?

6) Why centrifugation is used in fermentation technology?

7) Write the rate equation for enzyme kinetics?

8) Define overproduction of microbial metabolite.

9) How ethanol production is done? (only steps)

10) What is the effect of pH on rate of enzyme reaction?

SECTION-B

11) How production of propionic acid is done in fermentation technology?

12) Write about steroid fermentation technology with atleast two examples?

13) Define secondary metabolism and give their significance in detail.

14) How ion exchange recovery of biological products are done?

15) What is the difference between simple and complex reaction in rate equation in enzyme kinetics?

SECTION-C

16) Describe antibiotic pathways for metabolic engineering.

17) Diagrammatically explain about cell immobilization technique with examples.

18) Write short note on :

   a. Microbial polysaccharides

   b. Production of propionic acid

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.