

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)

Branch – FOOD PROCESSING TECHNOLOGY

FOOD FERMENTATION TECHNOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Find the enzyme involved in lactic acid fermentation.
(i) amylase (ii) dehydrogenase
(iii) pectinase (iv) oxido reductase
- 2 Temperature required for dry heat sterilization must be
(i) higher than moist heat (ii) lower than moist heat
(iii) equal to UV sterilization (iv) equal to moist heat
- 3 Identify the part that controls aeration in fermentor.
(i) Feed pump (ii) Impeller
(iii) Sparger (iv) Catalyst
- 4 Fermented soya paste is known as
(i) Dhokla (ii) Tempeh
(iii) Tofu (iv) Miso
- 5 Choose the microorganism that produces dextran.
(i) Leuconostoc mesenteroides (ii) Streptococcus thermophilus
(iii) Bacillus polymyxa (iv) Candida utilis

SECTION - B (15Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Outline the nutritive value and benefits of fermentation.
OR
b Bring out the chemical changes that takes place during fermentation.
- 7 a Highlight the importance of pH, temperature and aeration during fermentation.
OR
b Describe the steps in inoculum preparation.
- 8 a State the points to be considered during scale up of bioreactor.
OR
b How will you select a good bioreactor ?

Cont...

- 9 a List the milk based fermented foods and explain any one.
OR
b Bring out the quality test to be carried for fermented foods.
- 10 a Show the production flow chart for GOS and FOS.
OR
b Sketch the flowchart for production of anyone antibiotics.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Categorize the microorganisms involved in fermentation process.
OR
b Classify different types of fermentation.
- 12 a Summarize on different methods of sterilization.
OR
b Elucidate on media preparation and process optimization.
- 13 a Distinguish between submerged culture and solid state fermentation.
OR
b Infer on downstream processing.
- 14 a Outline the manufacturing process of baker's yeast.
OR
b Discuss on the different types of fruit based fermented foods.
- 15 a Enumerate on the production of any one organic acid.
OR
b Point out the steps in microbial production of pectinase enzyme.

Z-Z-Z

END