



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg) 2016 Admission
V Semester Final Examination-January 2019

Fdsc 3105

Fermentation Technology (1+1)

Marks:50
Time:2 hours

I Match the following (10x1=10)

- | | | | |
|---|-------------------|---|-------------------|
| 1 | Louis Pasteur | a | Penicillin |
| 2 | Robert Koch | b | Anthrax bacterium |
| 3 | Edward Jenner | c | Fermentation |
| 4 | Alexander Fleming | d | Small pox vaccine |

Fill the following blanks

- 5 Microorganisms involved in fermentation of yoghurt are _____ and _____
- 6 Lyophilization is based on the principle of _____.
- 7 Rennet is the combination of _____ and _____ enzymes.
- 8 Ale is fermented by _____ and lager is fermented by _____ Microorganisms.
- 9 Distilled alcoholic beverages are _____, _____ and _____
- 10 Products based on lactic acid fermentation are _____ and _____

II Write Short notes on ANY FIVE of the following (5x2=10)

- 1 Fed batch culture
- 2 Growth factors for industrial fermentation
- 3 Role of baffles
- 4 Antifoam agents
- 5 Sauerkraut
- 6 Nutrient recycling
- 7 Lager

III Answer ANY FIVE of the following (5x4=20)

- 1 Impact of fermentation on nutritional value of foods.
- 2 Differentiate batch culture from continuous culture
- 3 Criteria for selection of industrially important microorganisms.
- 4 Enrichment technique for isolation of industrially important microorganisms.
- 5 Preparation procedure of beer with flow sheet
- 6 Enlist and explain one method in detail about purification of fermented products
- 7 Discuss any one product in detail by lactic acid fermentation

IV Answer ANY ONE of the following (1x10=10)

- 1 Fermentation and its benefits. Explain the procedure for preparation, recovery, ageing and bottling of wine.
2. Draw and label the design of fermentor. Explain in detail various parts involved. Discuss fermentation vessels in detail.
