



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.
