



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food. Engg.) 2015 Admission
V Semester Final Examination-January-2018

Fdsc.3206

Fermentation Technology (1+1)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the Blanks

- 1 -----are dried cells of micro organisms which can be used as a dietary protein supplement.
- 2 -----is an example for a commercial enzyme produced from *Aspergillus oryzae*.
- 3 Alcohol content of brandy is-----
- 4 -----is the enzyme used to coagulate milk in cheese making
- 5 Vinegar is produced by the fermentation of-----by acetic acid bacteria

Match the Following

- | | |
|--------------|--------------|
| 6 Sauerkraut | a Wine |
| 7 Cider | b Cabbage |
| 8 Malting | c Cane sugar |
| 9 Molasses | d Beer |
| 10 Yeast | e Apple |

II Write Short notes on any FIVE of the following

(5x2=10)

- 1 Microbial metabolites
- 2 Continuous culture
- 3 Lactic acid fermentation
- 4 Batch filtration
- 5 Fermented meat products
- 6 Benefits of fermentation
- 7 Recombinant organism for fermentation

III Answer any FIVE of the following.

(5x4=20)

- 1 Explain the different phases of microbial growth
- 2 Discuss ethanolic fermentation under the following headings
a Process b Organisms used c Substrate and media composition d Uses
- 3 Write on the principles of sterilisation
- 4 Mention any five important parts of a fermenter and its functions.
- 5 Write on the production of single cell protein
- 6 Discuss on the history and development of fermentation industry
- 7 Explain the application and uses of fed batch culture

IV Write an essay on any ONE of the following

(1x10=10)

- 1 Discuss on the different media for industrial fermentation
- 2 Write briefly on traditional fermented foods.
