VI Semester B.Sc. Examination, May/June 2018 (Semester Scheme) (F+R) (CBCS – 2016-17 and Onwards/NS-2013 – 14 and Onwards) MICROBIOLOGY – VIII Industrial Microbiology and Microbial Technology

Time: 3 Hours

Max. Marks: 70

Instructions: 1) Answer all Parts.

- 2) Candidates of 2013-14 and onwards should answer A, B and C Part only.
- 3) Draw diagrams wherever necessary.

PART - A

I. Answer the following:

 $(5 \times 2 = 10)$

- 1) Adsorption
- 2) Malting

BMSCW

- 3) Hydroxylation
- 4) Koji's process
- 5) Batch sterilization.

PART - B

II. Answer any four of the following:

 $(4 \times 5 = 20)$

- 6) Explain the temperature and pH regulation in fermentation.
- 7) Describe Airlift fermentor.
- 8) Describe primary screening of industrially important organisms.
- 9) Give an account on brewing.
- 10) Explain fermentative production of Glutamic acid.

P.T.O.

PART - C

III. Answer any three of the following:

 $(3 \times 10 = 30)$

- 11) Explain batch and continuous fermentation process. Add a note on SSF.
- 12) Give an account on various media used in industrial fermentation process.
- 13) Explain the steps involved in recovery of product from fermentation broth.
 - 14) Describe the industrial production of whisky.
 - 15) Explain the production of Penicillin.

PART - D

IV. Answer in one line only:

 $(10 \times 1 = 10)$

- 16) Adjuncts
- 17) Wort
- 18) Casing
- 19) Biotransformation
- 20) Aspergillus. niger
- 21) Baffles
- 22) Wooden casks
- 23) Silicone
- 24) Mutagenesis
- 25) Biofuels.