

MS – 341

VI Semester B.Sc. Examination, May 2016

(Semester Scheme) (F+R)

MICROBIOLOGY – VIII

Industrial Microbiology and Microbial Technology

(70 Marks : 2013-14 and Onwards/

60 Marks : Prior to 2013-14)

Time : 3 Hours

Max. Marks : 70(F)/60(R)

- Instructions:**
- 1) Candidates of **2013-14** should answer **all** the questions.
  - 2) Candidates Prior to **2013-14** should answer **A, B, C** Sections only.
  - 3) Draw diagram **wherever** necessary.
  - 4) **70** marks for students of **2013-14** and Onwards.
  - 5) **60** marks for repeater students Prior to **2013-14**.

PART – A

Write brief notes on the following :

(5×2=10)

- 1) Temperature regulation.
- 2) Bacillus thuringiensis.
- 3) Cell disruption.
- 4) Carriers.
- 5) Entrapment.

PART – B

Answer **any four** of the following :

(4×5=20)

- 6) Give an account on the various media used in industrial fermentation.
- 7) Describe isolation and screening of industrially important organisms.
- 8) Write a note on biofuels.
- 9) Explain the production of wine.
- 10) Describe the significance and production of glutamic acid.

P.T.O.



## PART - C

III. Answer **any three** of the following :

(3×10=30)

- 11) Describe different types of industrial fermentation process.
- 12) Explain the various types of chromatographic techniques used for product recovery.
- 13) Explain :
  - a) Tower fermentor
  - b) Air lift fermentor
- 14) Explain industrial production of penicillin.
- 15) Describe biotransformation of steroids.

## PART - D

IV. Answer in **one** line only :

(1×10=10)

- 16) Black strap molasses.
  - 17) Centrifugation.
  - 18) Sparger.
  - 19) Inoculum.
  - 20) Inhibitor.
  - 21) Mash.
  - 22) Human insulin.
  - 23) Ammonium nitrate.
  - 24) Spawn.
  - 25) Tween 80.
-