D 30577 **(Pages : 2)** **Name.....**

Reg. No.....

FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, NOVEMBER 2022

Microbiology

MBG 5B 06—INDUSTRIAL MICROBIOLOGY

(2019 Admission onwards)

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer **all** *questions in two* **or** *three sentences.*
Each question carries 2 *marks.*

1 Corn steep liquor.

2 Ionization radiation.

3 Turbidostat.

4 Baffles.

5 Sparger.

6 Strain improvement.

7 Crowded plate.

8 *Propionibacterium shermani.*

9 Macrocyclic lactone antibiotic.

10 Secondary screening.

11 Foam control in fermenter.

12 Sparkling wine.

13 Idiolite.

14 Precursors of fermentation medium.

15 Amylases.

(Maximum = 25 marks)

Section B

Answer any **five** *of the following.*

16 Discuss the major component of an industrial fermenter.

17 What are the various types of cultures used in industrial microbiology ?

Turn over

18 Inspect the process involved in the industrial production of citric acid.

19 Discuss the utility and application of solid-state fermentation.

20 Elaborate in detail the process and methods for strain improvement.

21 Outline the mechanism of acetone -butanol fermentation.

22 Elaborate in detail the industrial production of Vitamin B12.

23 Discuss the relevance of WIPO.

(Maximum = 35 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Elaborate the major methods used for the preservation of cultures for industrial use.

25. Describe various control systems used in fermentation process.

26. Elaborate the industrial production microbial enzymes with suitable examples.

27. Investigate various kinds of IPR with suitable examples.

(Maximum : 2 × 10 = 20 marks)