

Exam Date & Time: 28-Sep-2020 (10:00 AM - 01:45 PM)



PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins

BSc DEGREE EXAMINATION MAY 2020
(Sixth Semester)

Branch - MICROBIOLOGY
INDUSTRIAL MICROBIOLOGY [14MBU25]

Marks: 75

Duration: 210 mins.

SECTION A

Answer all the questions.

- 1) Mutants. (2)
- 2) Indicator dye. (2)
- 3) Sparger. (2)
- 4) Bio reactor. (2)
- 5) Power number. (2)
- 6) Newtonian fluid. (2)
- 7) Freezing. (2)
- 8) Osmotic shock. (2)
- 9) Homolactic acid. (2)
- 10) Cephalosporins. (2)

SECTION B

Answer all the questions.

- 11) Identify a suitable techniques for screening an industrially important microbe from natural sources. (5)
 - a) [OR] Explain in brief about importance of autotrophic mutants. (5)
 - b)
- 12) Sketch out the basic structure of fermentor. (5)

- a)
[OR] Discuss in detail about need of air lift fermentor. (5)
b)
- 13) Classify the essential nutrients required for preparing mass production media. (5)
- a)
[OR] Reynold's and frauds number is important for media viscosity – Justify. (5)
b)
- 14) Choose appropriate physical cell distruption methods for Intracellular product recovery. (5)
- a)
[OR] State the importance of Rotary drum filters. (5)
b)
- 15) Show the various stages involved in citric acid production. (5)
- a)
[OR] Analyze different factors involved in wine preparation. (5)
b)

SECTION C

Answer 3 out of 5 questions.

- 16) Formulate the suitable procedures for improving industrially important strains. (10)
- 17) Evaluate the impacts of membrane bioreactor. (10)
- 18) Design a protocol for developing a bacterial inoculum for industrial production. (10)
- 19) Interpret your view on advantages of liquid–liquid extraction method with suitable example. (10)
- 20) Plan an efficient method for successful large scale production of penicillin. (10)

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