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B.Sc./4th Sem (H)/MICB/23(CBCS)

2023

4th Semester Examination
MICROBIOLOGY (Honours)

Paper : GE 4-T

[Applied Microbiology - II]

[CBCS]

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *five* questions.

2×5=10

1. What is pasteurization?
2. What are impeller and sparger in fermenter?
3. What is batch culture?
4. Write down the name of two antifoam agents used in industrial fermentation.
5. What is endotoxin?
6. What is the function of B-cell in immunity?

P.T.O.

(2)

7. Write down the names of causative agent of TB and Typhoid.
8. What is nosocomial infection?

Group - B

Answer any *four* questions.

5×4=20

9. Describe the role of different intrinsic factors in the spoilage of a food product. 5
10. Define virulence. Write down the names of a primary and a secondary metabolite of bacteria. What is lyophilization? 2+2+1
11. Write down the operational process of continuous fermentation. What is hapten? 4+1
12. Define fermentation. Write down the differences between the solid and submerged fermentation process. 1+4
13. What is a human microbiome? Discuss the normal microbiota of the skin. 2+3
14. Which antibody can cross the placenta? Write down some major properties of that antibody. 1+4

Group - C

Answer any *one* question.

10×1=10

15. Write the principle of irradiation mediated food preservation. How do champagne differ from wine? How does a food-borne intoxication differ from a food-borne

(3)

infection? Discuss the role of high temperature in food preservation. 2+3+2+3

16. Write down the major difference between innate and adaptive immunity. What is an adjuvant? Discuss the function of an adjuvant. What is a pathogenicity island? 3+2+3+2

বঙ্গানুবাদ

বিভাগ - ক

যেকোনো পাঁচটি প্রশ্নের উত্তর দাও : ২×৫=১০

- ১। পাস্তুরাইজেশন কি?
- ২। ফার্মেন্টারে ইম্পেলার এবং স্পারগার কী?
- ৩। ব্যাচ সংস্কৃতি কি?
- ৪। শিল্প ফার্মেন্টেশনে ব্যবহৃত দুটি অ্যান্টিফোম এজেন্টের নাম লেখ।
- ৫। এন্ডোটক্সিন কি?
- ৬। রোগ প্রতিরোধ ক্ষমতায় বি-কোষের কাজ কী?
- ৭। যক্ষ্মা ও টাইফয়েডের কার্যকারকদের নাম লেখ।
- ৮। Nosocomial সংক্রমণ কি?

P.T.O.