(6 pages)

Reg. No. :

Code No.: 20373 E Sub. Code: AMBO 63

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

Sixth Semester

Botany - Core

MICROBIOLOGY

(For those who joined in July 2020 onwards)

Time: Three hours

Maximum: 75 marks

PART-A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer:

- 1. The process of vaccination was introduced by
 - (a) Robert Koch
- (b) Edward Jenner
- (c) Louis Pasteur
- d) Alexander Fleming
- 2. Who is called the father of immunology?
 - (a) Edward Jenner
 - (b) Anton Von Leeuwenhock
 - (c) Robert Koch
 - (d) Louis Pasteur

- 3. Blastobacter, seliberia are generally known as
 - (a) Binary fission bacteria
 - (b) Budding bacteria
 - (c) Fragmentation bacteria
 - (d) Conidiospores bacteria
- The process of DNA uptake by the bacteria from the surrounding environment is called
 - (a) Bacterial transduction
 - (b) Bacterial transformation
 - (c) Bacterial conjugation
 - (d) Binary fission
- 5. HIV virus is
 - (a) Rod shaped virus
 - (b) Spherical shaped virus
 - (c) Tadpole shaped virus
 - (d) Helical shaped virus

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- 6. T4 bacteriophage was discovered by
 - (a) Twort
- (b) Ivanowski
- (c) Luc Montagnier (d) Ehrenberg
- 7. Nicholas appert is the
 - (a) Father of fermentation
 - (b) Father of bottling
 - (c) Father of canning
 - (d) Father of pasteurization
- The toxicity introduced into food by microbes and their products is called
 - (a) Food poisoning (b) Food spoilage
 - (c) Food infection (d) Food preservation
- 9. Knoll and Ruska designed the
 - (a) Phase contrast microscope
 - (b) Flourescence microscope
 - (c) Polarization microscope
 - (d) Electron microscope

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- 10. The first micrsocope was discovered by
 - (a) Knoll and Rusk
 - (b) Jenssen and Hans
 - (c) Anton van Leewenhoek
 - (d) Erwin Whilhelm muller

PART B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions choosing either (a) or (b). Each answer should not exceed 250 words.

 (a) Write the contribution of Anton van Leeuwenhock and Louis Pasteur.

Or

- (b) Explain five kingdom classification.
- 12. (a) Demonstrate the growth of bacteria.

Or

(b) Write the importance of bacteria.

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[P.T.O]

13. (a) Explain the structure of HIV.

Or

- (b) Explain the structure of TMV.
- 14. (a) Explain food spoilage.

Or

- (b) Explain food poisoning.
- 15. (a) Define fermenter.

Or

(b) Write short notes on phase contrast microscope.

PART C — $(5 \times 8 = 40 \text{ marks})$

Answer ALL questions by choosing either (a) or (b). Each answer should not exceed 600 words.

16. (a) Explain ultrastructure of bacteria.

Or

- (b) Explain the nutritional types of bacteria.
- 17. (a) Explain the reproduction of bacteria.

Or

(b) Explain the phases of growth of bacteria.

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18. (a) Write the structure of bacteriophage with suitable diagram.

Or

- (b) Give a detailed account on multiplication of bacteriophage.
- 19. (a) Explain the procedure of making wine.

Or

- (b) Explain the method of food preservation.
- 20. (a) Explain electron microscope.

Or

(b) Explain fluorescent microscope.

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