

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

Fifth Semester

Zoology — Core

IMMUNOLOGY AND MICROBIOLOGY

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Everyone is born with _____ immunity.
(a) active immunity (b) innate immunity
(c) long immunity (d) none of the above
2. These organs include the bone marrow and the thymus are called
(a) Primary lymphoid organs
(b) Secondary lymphoid organs
(c) Both lymphoid organs
(d) All the above

3. Immunoglobulins, also known as
(a) hormone (b) antibiotics
(c) antibodies (d) all the above
4. Agglutination is the process that occurs if an antigen is mixed with its corresponding antibody called
(a) isoagglutinin (b) mesoagglutinin
(c) invitroagglutinin (d) none of the above
5. A lymphocyte is a type of
(a) pigment (b) white blood cell
(c) red blood cell (d) all the above
6. These tumors are not cancerous
(a) Benign (b) Malignant
(c) Tumor (d) All the above
7. The culture media is consist large amount of agar is _____ nature of a brown jelly-like substance known as agar this
(a) solid (b) liquid
(c) water (d) all the above

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8. Batch culture is a technique used to grow _____
(a) microorganisms (b) bacteria
(c) fungus (d) all the above
9. _____ is the process where a food product becomes unsuitable to ingest by the consumer.
(a) Food production (b) Food spoilage
(c) Food ingredient (d) All the above
10. Gonorrhoea is an infection caused by a sexually transmitted bacterium that infects
(a) male only
(b) female only
(c) both males and females
(d) none of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define the term immunity explain types of immunity.
Or
(b) What causes tonsils? Should tonsil be removed?

12. (a) How many types of antigen and antibody are found?
Or
(b) How do antigen and antibodies interact?
13. (a) What are the different types of B cells and their functions?
Or
(b) List out the difference between humoral and cellular response.
14. (a) What are the structural features of bacterial cell?
Or
(b) How many phases are in the bacterial growth curve?
15. (a) Write processes of nitrogen cycle.
Or
(b) Describe the various symptoms of streptococcus infection.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the structure and function of the thymus gland.

Or

- (b) What is the scope and applications of immunology?

17. (a) Describe the different types of antigen-antibody reaction.

Or

- (b) How does opsonization happen? What is cytolysis in immunology?

18. (a) Where do stem cells come from? What are benefits of stem cells?

Or

- (b) Explain the various types of T cells and their functions.

19. (a) Discuss about the three basic structure of viruses.

Or

- (b) Summarize the microbiology scope, importance and branches.

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20. (a) What is the symptoms and prevention of tuberculosis?

Or

- (b) How is penicillin produced which type of fermentation is used?

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