

Code No. : 10608 E Sub. Code : SAMI21/
AAMI21/CAMI21

CBCS) DEGREE EXAMINATION, APRIL 2022.

Second Semester
Microbiology - Allied
GENERAL BIOLOGY

For those who joined in July 2017 onwards)

Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

Bacterial capsule is chemically composed of.

- a) Polypeptide (b) Polysaccharides
c) Polynucleotide (d) Both (a) & (b)

Mesosomes are the part of _____.

- a) Plasma membrane
b) Ribosomes
c) Endoplasmic reticulum
d) Golgi apparatus

"Ragi" is very rich in _____.

- (a) Zinc (b) Iodine
(c) Iron (d) Phosphorus

Chordates are distinguished from non-chordates by the presence of.

- (a) Ventral nerve cord
(b) Dorsal nerve cord
(c) Brain
(d) Dorsal tubular nerve cord

Silk is produced by.

- (a) Cocoon
(b) Adult moth
(c) Larva
(d) Larva and adult moth

PART B — (5 × 5 = 25 marks)

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

- (a) Explain the structure and functions of bacterial capsule.

Or

- (b) Write about locomotion in bacteria.

3. _____ is involved in the synthesis of phospholipids?
(a) Mitochondria
(b) Cytoplasm
(c) Endoplasmic reticulum
(d) Smooth endoplasmic reticulum
4. Which of the following is a single membrane bound organelle?
(a) Vacuole
(b) Golgi apparatus
(c) Endoplasmic reticulum
(d) All of the above
5. Binary fission in bacteria does not involve.
(a) Spindle formation (b) DNA duplication
(c) Cytokinesis (d) Cell elongation
6. _____ is a form of cell division which results in the creation of gametes or sex cells.
(a) Mitosis (b) Meiosis
(c) Both (a) and (b) (d) None of the above
7. _____ gives colour to flower and fruits?
(a) Endoplasmic reticulum
(b) Plastids
(c) Golgi bodies
(d) Cell wall

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12. (a) Explain the structure and functions of.
(i) Mitochondria.
(ii) Golgi apparatus.

Or

- (b) Describe the structure and functions of.
(i) Eukaryotic ribosomes.
(ii) Nucleus.

13. (a) Write about endospore formation in bacteria with neat diagram.

Or

- (b) What is Meiosis? Explain the important stages in Meiosis I.

14. (a) Write about adaptations in xerophytes and hydrophytes.

Or

- (b) With neat diagram explain the ultra structure of plant cell.

15. (a) List out the general characteristics of vertebrates.

Or

- (b) Explain the current status of aquaculture in India and its importance.

PART C — (5 × 8 = 40 marks)

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

16. (a) With neat diagram explain the ultra structure of bacteria.

Or

- (b) Explain briefly about bacterial cell membrane.

17. (a) Describe the common features of eukaryotic cells and functions of eukaryotic cell organelles.

Or

- (b) Write about the structure and functions of

(i) Endoplasmic reticulum

(ii) Lysosome

18. (a) Write an essay on reproduction in bacteria.

Or

- (b) With neat diagram explain the different stages of mitosis.

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19. (a) Discuss the general characters of gymnosperm.

Or

- (b) Write about the economic importance of
(i) cowpea (ii) sunflower oil

20. (a) What are the different parts of human respiratory system? Explain the role of each part.

Or

- (b) Write an essay on apiculture and its economic importance.

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