

(6 pages)

Reg. No. :

Code No. : 20567 E Sub. Code : CAMI 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2024.

Second Semester

Microbiology - Allied

GENERAL BIOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. What structures do mitochondria function in bacteria?
(a) Ribosomes
(b) Mesosomes
(c) Cell wall
(d) Nucleoid

6. Predict the structure divide at the end of metaphase.
(a) chromatids (b) centromeres
(c) chromosomes (d) none of these
7. Gymnosperm may differ from angiosperm is
(a) having seeds
(b) having fruits
(c) having naked ovules
(d) both (a) and (b)
8. Identify the part of *Jatropha* is used as biodiesel.
(a) seeds (b) leaves
(c) flowers (d) stem
9. _____ animal contains notochord in the embryonic stage.
(a) vertebrates (b) non - chordates
(c) all chordates (d) both (a) and (b)
10. Select the longest segment of the digestive system in the human body.
(a) small intestine (b) large intestine
(c) esophagus (d) pancreatic duct

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2. Trace the pigment is present in bacteria.
(a) chlorophyll
(b) bacteriochlorophyll
(c) anthocyanins
(d) both (a) and (b)
3. Plant cell wall is made up of _____
(a) cellulose, hemicellulose and pectin
(b) cellulose and chitin
(c) cellulose, hemicellulose and chitin
(d) cellulose
4. Identify the following is a double membrane bound organelle.
(a) nucleus (b) chloroplast
(c) mitochondria (d) All of these
5. The process through which bacteria reproduce is called _____
(a) Binary fission (b) Meiosis
(c) Mitosis (d) Fragmentation

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PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Select the characteristics of prokaryotic cytoplasmic inclusions and their functions.
Or
(b) Describe the salient Features of reserve materials.
12. (a) Select the structural characteristics of Golgi complex.
Or
(b) Predict the functions of ribosome.
13. (a) Illustrate the stages of meiosis II cell division.
Or
(b) Write the significance of mitosis and meiosis.
14. (a) Explain the general characters of Bryophyta.
Or
(b) Select the economic importance of biodiesel plant.

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[P.T.O.]

15. (a) Choose the salient features of Invertebrates.

Or

(b) Select the importance of aquaculture.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Enumerate the structural characteristics and uncton of slime layer and capsule.

Or

(b) Examine the ultra structure of nuclear material in prokaryotic cell.

17. (a) Illustrate the structure and functions of chloroplast.

Or

(b) Explain the ultra structure and function of nucleus.

18. (a) Illustrate the various stages of mitosis.

Or

(b) Interpret the Asexual reproduction in bacteria.

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19. (a) Explain the ultra structure of plant cell with neat diagram.

Or

(b) Select the adaptation features of xerophytes and halophytes with examples.

20. (a) Summarize the respiratory system of human.

Or

(b) Select the process of sericulture and their economic importance.

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