

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

Fourth Semester

Zoology

Skill Based Core — VERMITECHNOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

- The first segment of the earthworm is called
(a) pygidium (b) prostomium
(c) peristomium (d) clitellum
- Earthworm belongs to the order
(a) Gnathobdellida (b) Errantia
(c) Neoligochaeta (d) Sedentaria

- Identify the exotic species from the following
(a) Megasclex species
(b) Eisenia fetida
(c) Lampito mauriti
(d) Perionyx excavatus
- For earthworm culture, the selected specie should be
(a) high in growth rate
(b) resistance of diseases
(c) adaptable to climatic change
(d) all the above
- The temperature required for making quality vermicompost.
(a) 20 – 32°C (b) 15 – 20°C
(c) 25 – 30°C (d) 35 – 40°C
- The main change takes place during vermicomposting
(a) fragmentation of organic matter
(b) enhancement of microbial activity
(c) mineralization
(d) all the above

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- The liquid that is collected after the passage of water through the vermiculture tank is
(a) vermifiltre (b) worm cast
(c) vermibed (d) vermiwash
- Who is known as nature's ploughman
(a) Neries (b) Cattle
(c) Leech (d) Earthworm
- Vermiculture in India was first initiated at
(a) Maharashtra (b) Tamil Nadu
(c) Kerala (d) Karnataka
- Association for promotion of organic farming is located in _____
(a) Bangalore (b) Goa
(c) Mysore (d) Chennai

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

- (a) Write brief note on food habits of earthworm.
Or
(b) Explain the digestive system of an Earthworm.

- (a) Explain the exotic species of earthworm used for vermicomposting.
Or
(b) Describe the methods of collection of earthworms for vermicomposting.
- (a) What are the requirements for vermicomposting?
Or
(b) Explain the methods of vermicompost harvesting.
- (a) Write short note on the economics of vermicomposting.
Or
(b) Write short note on vermifilter.
- (a) Write short notes about the packaging of vermicompost.
Or
(b) Explain the problems in the marketing of vermicompost.

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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) Write an essay on the general characters of the class Oligochaeta.

Or

- (b) Describe the reproductive system of earthworm with diagram.

17. (a) State the specific characters of North and South Indian species of earthworm.

Or

- (b) Describe the culture technique of Earthworm.

18. (a) Explain the different methods of vermicomposting.

Or

- (b) Explain the mechanism and changes during vermicomposting.

19. (a) List out the medicinal values of Earthworms.

Or

- (b) Explain the technical procedure adapted in vermivash preparation.

20. (a) Discuss the role of NGOs in financial supporting for vermicomposting.

Or

- (b) Give a detailed account on large scale manufacturing of vermicomposting.