

(6 pages)

Reg. No. :

Code No. : 30268 E Sub. Code : SSZO 4 B/
ASZO 42

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Fourth Semester

Zoology – Core

Skill Based Core — VERMITECHNOLOGY

(For those who joined in July 2017–2020)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The nephridia of earthworm without nephrostomes are _____
- (a) Integumentary (b) Pharyngeal
(c) Septal (d) Both (a) and (c)

2. Male genital aperture of earthworm is located in the segment
- (a) 13 (b) 14
(c) 19 (d) 18
3. Which among the following is not a major reason for choosing earthworms for vermicomposting?
- (a) Low incubation time
(b) Digestion rate
(c) Adaptability
(d) Low growth rate
4. Which of the following is true about vermicompost?
- (a) vermicompost is red in colour
(b) vermicompost is black in colour
(c) vermicompost is brown in colour
(d) vermicompost is white in colour
5. The moisture level required for vermicomposting should be between
- (a) <30% (b) 40-50%
(c) 70-80% (d) >90%

6. The maximum temperature required for vermicomposting is _____
- (a) 20°C to 25°C (b) 30°C to 35°C
(c) 25°C to 30°C (d) 35°C to 40°C
7. Which of the following products can be used for vermicomposting?
- (a) cow dung (b) plant materials
(c) animal wastes (d) all of the above
8. The following is the best worm used for composting
- (a) maggots (b) pink worms
(c) red wigglers (d) all of the above
9. The following raw material is used for preparing compost
- (a) cow dung
(b) weed biomass
(c) dry straw and leaves
(d) all the above
10. Which organism is commonly known as friends of farmers?
- (a) cockroach (b) earthworm
(c) honey bee (d) housefly

PART B — (5 × 5 = 25 marks)

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

11. (a) Describe the food habits of earthworm.
- Or
- (b) Earthworm as farmer's friend - Discuss.
12. (a) Explain any two South Indian Earthworm species in detail.
- Or
- (b) Write a note on different types of earthworm.
13. (a) Describe heap method.
- Or
- (b) Comment on tray method of composting.
14. (a) Summarize the uses of earthworms in land improvement.
- Or
- (b) Write down the medicinal value of earthworm meal.

15. (a) Write an essay on compost marketing.

Or

(b) What are the financial support for vermicomposting? Discuss.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain digestive system of earth worm.

Or

(b) Give a detailed account on life cycle of earthworm.

17. (a) Discuss the methods of collecting and preserving earthworm for composting.

Or

(b) Explain North Indian species earthworms used in vermicomposting (any two).

18. (a) Discuss methods of vermicomposting.

Or

(b) Summarize the changes during vermicomposting.

Page 5 Code No. : 30268 E

19. (a) Discuss the role of earthworms in solid and sewage waste management.

Or

(b) Earthworms as bioreactors - Justify.

20. (a) Give a detailed account on large scale manufacture of vermicompost.

Or

(b) Explain chemical factors influencing earthworm activities.

Page 6 Code No. : 30268 E