

(6 pages)

Reg. No. : .....

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

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

Fourth Semester

Zoology

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. Male genital aperture of earthworm is located in the segment
- (a) 18 (b) 14  
(c) 19 (d) 13

6. In earthworm fertilization occurs in
- (a) coon (b) ootheca  
(c) oviduct (d) water
7. Clitellum region is located in \_\_\_\_\_
- (a) Segment 14-15-16  
(b) Segment 13-14-15  
(c) Segment 15-16-17  
(d) Segment 12-13-14
8. The mode of respiration in earthworm is \_\_\_\_\_
- (a) cutaneous (b) gills  
(c) subcutaneous (d) pulmonary
9. Vermicompost is a/an \_\_\_\_\_
- (a) synthetic fertilizer  
(b) toxic substance  
(c) inorganic fertilizer  
(d) organic biofertilizer

2. The moisture level required for vermicomposting should be between
- (a) 20–30% (b) 40–50%  
(c) 70–80% (d) 80–90%
3. The maximum temperature required for vermicomposting is \_\_\_\_\_
- (a) 25°C–30°C (b) 30°C–35°C  
(c) 35°C–40°C (d) 40°C–45°C
4. The following raw material is used for preparing vermicompost
- (a) Weeds  
(b) Dry straw and leaves  
(c) Cow dung  
(d) All of these
5. Which organism is commonly known as friends of farmers?
- (a) Earthworm (b) Honey bee  
(c) Cockroach (d) Housefly

10. The female genital aperture in earthworms is present ventrally on the segment
- (a) 14<sup>th</sup> (b) 12<sup>th</sup>  
(c) 18<sup>th</sup> (d) 10<sup>th</sup>

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Explain the classification of earthworm.  
Or  
(b) Write the food habits of earthworms.
12. (a) Earthworm as farmer's friend – Discuss.  
Or  
(b) Describe the methods of collecting earthworms.
13. (a) Give an elaborate note on pot method.  
Or  
(b) Explain heap method of vermicompost production.

14. (a) Write the role of earthworms in land improvement.

Or

(b) Describe about vermifilters.

15. (a) Discuss the role of NGOs in vermiculture.

Or

(b) Give a short note on compost marketing.

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 digestive system of earthworm.

Or

(b) Write an essay on the reproductive systems of earthworm.

17. (a) Explain any two North Indian earthworm species.

Or

(b) Describe the methods of preserving earthworms for vermicomposting.

Page 5 Code No. : 30268 E

18. (a) Give a detailed account on methods of vermicomposting.

Or

(b) What are the changes occur during vermicomposting?

19. (a) Discuss the role of earthworms in fascal waste management.

Or

(b) Comment on earthworm as bioreactor.

20. (a) Explain the large scale manufacture of vermicompost.

Or

(b) Discuss the interaction of earthworms with other organisms.

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Page 6 Code No. : 30268 E