

## M.Sc. I Semester Degree Examination, April/May - 2024

### ZOOLOGY

#### SEC 1 : Vermiculture and Vermitechnology

#### (NEP)

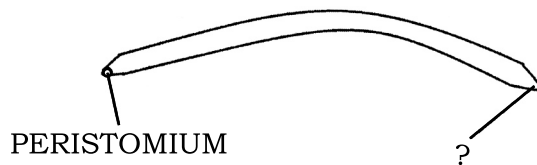
Time : 1 Hour

Maximum Marks : 30

**Note :** Answer the following MCQ in an OMR provided. (Each question carries **one** mark)

1. The First body segment of earthworm is :  
(A) Peristome (B) Peristomium (C) Protostomium (D) Protostome
2. The mode of respiration in earthworm is :  
(A) Cutaneous (B) Gills (C) Pulmonary (D) Subcutaneous
3. Choose the correct statement regarding compost :  
(A) Decomposed remnants of organic material  
(B) Decomposed remnants of inorganic material  
(C) Fresh remnants of organic material  
(D) Fresh remnants of inorganic material
4. What is the width of the second layer of compost ?  
(A) 4-6 inches (B) 4-10 inches (C) 6-10 inches (D) 3-15 inches
5. What is the major advantage of three-tire vermiculture technology ?  
(A) It can be applied to both solid and liquid wastes  
(B) It cannot be applied to both solid and liquid wastes  
(C) It involves chemical treatment  
(D) It can degrade organic wastes
6. Leaves falling from trees should be :  
(A) Dumped near the ponds and lakes  
(B) Dried and burnt  
(C) Used in making compost  
(D) Dumped in landfill area
7. Which of the following chemicals are used for protecting vermi-bed from ants ?  
(A) DDT (B) Griseofulvin  
(C) Chlorpyriophosphate (D) Chloramphenicol

8. The use of earthworms to convert organic waste into fertilizer is known as :  
 (A) Vermiculture (B) Composting  
 (C) Vermicomposting (D) None of these
9. For vermicomposting, this species of earthworm is not apt :  
 (A) *Perionyx Excavatus* (B) *Pheretima Posthuma*  
 (C) *Eudrilus Eugeniae* (D) *Eisenia Fetidae*
10. Identify the part of earthworm shown in the picture below :



- (A) Female genital pore (B) Male genital pore  
 (C) Anus (D) Clitellum
11. Earthworm have no skeleton but during burrowing the anterior end becomes turgid and acts as a hydraulic skeleton. It is due to :  
 (A) Setae (B) Gut peristalsis  
 (C) Coelomic fluid (D) Blood
12. How much can worms eat each day ?  
 (A) Half their body weight in food  
 (B) Equal to their body weight in food  
 (C) Double their body weight in food  
 (D) None of the above
13. How long will it take for your worm population to double ?  
 (A) 30 days (B) 60 days  
 (C) 90 days (D) None of the above
14. Which is true about the composition of vermicompost ?  
 (1) pH value is 6.5 to 7.2  
 (2) Organic carbon is 30 to 50%  
 (3) Nitrogen is 0.5 to 3%  
 (4) Water holding capacity is 50 to 70%  
 (5) C and N ratio is 16:9  
 (6) Humus content is 6 to 8%  
 (A) Only (2), (4) and (5) are true  
 (B) Only (1) and (5) are true  
 (C) Only (1), (3) and (6) are true  
 (D) Only (1), (2), (3) and (4) are true



15. 3 'R' means :
- (A) Rain, reuse and recycle (B) Rotting, reduce and reuse  
(C) Recycle, rain and rotting (D) Reduce, reuse and recycle
16. Pollution from animal excreta and organic waste from kitchen can be most profitably minimized
- (A) Storing them in underground storage tanks  
(B) Using them for producing biogas  
(C) Vermiculture  
(D) Using them directly as biofertilizers
17. The steps required for conversion of kitchen garbage into manure are given below in a jumbled. Which of the following shows the correct sequence of the above steps ?
- (A) Cover the bottom of the pit with sand, Put garbage in a pit, Add worms, Cover the pit loosely with a gunny bag or grass.  
(B) Put garbage in a pit, Cover the bottom of the pit with sand, Cover the pit loosely with a gunny bag or grass, add worms.  
(C) Cover the bottom of the pit with sand, Add worms, Put garbage in a pit, Cover the pit loosely with a gunny bag or grass.  
(D) Add worms, put garbage in a pit, Cover the bottom of the pit with sand, Cover the pit loosely with a gunny bag or grass.
18. Which of the following is false about vermicomposting ?
- (A) Worms population doubles in 90 days  
(B) Worms eat double their body weight  
(C) The wooden bin is best for vermicomposting  
(D) Red worms are the best for vermicomposting
19. The \_\_\_\_\_ worm is commonly known as the "African nightcrawler".
- (A) *Megascolid esaustralis* (B) *Eudrilus eugeniae*  
(C) *Aporrectidea longa* (D) *Lumbricus friend*
20. Which of the following chemicals is used for protecting vermi-bed from ants ?
- (A) DDT (B) Griseofulvin  
(C) Chloramphenicol (D) Chlorpyriophosphate
21. Match the following items given in **Column A** with that in **Column B**.
- | <b>Column A</b>      | <b>Column B</b>                       |
|----------------------|---------------------------------------|
| (1) Land fill        | (i) Give out harmful gases on burning |
| (2) Vermi composting | (ii) Form compost                     |
| (3) Red worms        | (iii) Making things from waste        |
| (4) Recycling        | (iv) Land where garbage is thrown     |
- Choose the **correct** answer :
- (A) (1) - (iv) (B) (2) - (i) (C) (3) - (iii) (D) (4) - (ii)



22. Which of the following statements about earthworms is true ?  
(A) They are vertebrates  
(B) They do not live in burrows  
(C) They can be traced by fecal deposits  
(D) They inhabit the lower layers of the soil
23. The ideal pH for vermicomposting is :  
(A) 6.5-7.5                      (B) 7-8                      (C) 4-5                      (D) 5-6
24. Which of these statements is true about earthworm ?  
(A) They are harmful for agriculture  
(B) They are used as fishing bait  
(C) They decrease soil fertility  
(D) They cannot live in burrows
25. What is the average life span of an earthworm ?  
(A) 3-6 months                      (B) 6 months to 1 year  
(C) 1-3 years                      (D) 4-8 years
26. The characteristics features of the intestine between 26-35 segments is the presence of the internal fold of dorsal wall called :  
(A) Typhlosole                      (B) Nephridium                      (C) Pheretima                      (D) Clitellum
27. Which of the following wastes cannot be added in the process of making vermicompost ?  
(A) Cardboard                      (B) Cowdung                      (C) Newspaper                      (D) Pickles
28. Paramparagat Krishi Vikas Yojana (PKVY) financial assistance is provided for promotion of \_\_\_\_\_.  
(A) Organic farming                      (B) Poultry farming  
(C) Dairy farming                      (D) None of the above
29. Why do you need to weigh worms before putting them in compost bin ?  
(A) To know how much to feed them  
(B) To know how many there are  
(C) To see how much weight they are putting on  
(D) All the above
30. Which of the following is not a method of worm cast harvesting or manufacturing ?  
(A) Homogenization                      (B) Active feeding  
(C) Drying under adequate light                      (D) Separation of cocoons

