

No. of Printed Pages : 7

Sl. No.

Question Booklet Code

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M.Sc. I Semester Degree Examination, April /May - 2023

Skill Enhancement Courses (SEC)

ZOOLOGY

Vermiculture and Vermitechnology

(CBCS)

Time : 1 Hour

Maximum Marks : 30

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four/two/one versions of Question Booklets with Question Booklet Code viz. **A, B, C & D / A & B / A**.
2. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same Code.
3. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him contains all the 30 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same Code. This is most important.
4. A blank sheet of paper is attached to the Question Booklet. This may be used for Rough Work.
5. **Please read carefully all the instructions on the top of the Answer Sheet before marking your answers.**
6. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using **Black Ball-Point Pen** in the OMR Answer Sheet.
7. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator.
8. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.
9. First fifteen minutes is provided to fill the general information of the Student. Eg. Student Name, Student ID, etc. in the OMR Answer Sheet.
10. Without the instruction of the Invigilator do not open the Question Paper Booklet Seal.

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P.T.O.

1. How many species of earthworms are commonly using in vermiculture ?
(A) Seven (B) Ten (C) Four (D) Fifteen

2. What is the function of gizzard in earthworm ?
(A) Secretion of digestive enzymes
(B) Grinding soil particles and leaves
(C) Absorption of water
(D) It is a respiratory structure

3. The moisture level required for vermicomposting should be between _____.
(A) 40 and 50 percent (B) Below 30 percent
(C) Above 90 percent (D) 70 and 80 percent

4. This can be the best worm for composting :
(A) Maggots (B) Red wigglers
(C) Pink worms (D) Does not matter

5. Which of the following is NOT precautionary measure in vermicomposting ?
(A) Should not be a provision for drainage channels around the vermicompost heap so that there is more water accumulation
(B) The compost material must be purely organic
(C) The vermicompost beds must not be covered with plastic sheets or tarpaulin
(D) Addition of Acidic Substances must be avoided

6. The cost involved in setting up a 600 cubic feet vermicomposting unit would be around Rs._____.
(A) 1 lakh (B) 25 thousand
(C) 10 thousand (D) 10 lakhs



7. The earthworm is placed under the group :
- (A) Polychaeta (B) Hirudinea (C) Oligochaeta (D) Crustacea
8. 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
9. The process in which earthworms are used to degrade organic wastes is :
- (A) Compost bedding (B) Vermicomposting
(C) Humus forming (D) None of these
10. Vermicompost is a/an :
- (A) Organic biofertilizer (B) Inorganic fertilizer
(C) Synthetic fertilizer (D) Toxic material
11. 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
12. Which of the following procedures are used by the farmers to multiply the earthworms ?
- (A) By adding cow dung
(B) By adding plant materials
(C) By mixing more amount of biodegradable wastes
(D) All of the above



13. Which of the following is NOT a major objective of Vermicomposting ?
- (A) To accelerate the rate of degradation
 - (B) To elevate the value of original material
 - (C) To obtain products free of any pollutants
 - (D) To obtain toxic products
14. Materials NOT required for Vermicomposting :
- (A) Dung from dairy, goat and sheep farm
 - (B) Coir waste
 - (C) Earthworms
 - (D) Plastic waste
15. Which of the following method is NOT used for protecting vermi - bed from pests and predators ?
- (A) The vermicompost site is sprayed with 5% neem based insecticide before the heap is filled
 - (B) The heap can be covered with a net
 - (C) Organophosphate - based insecticides can be used
 - (D) Both (A) and (C)
16. A _____ is an aerobic treatment system, consisting of a biological reactor containing media that filters organic material from wastewater.
- (A) Fermentation vessel
 - (B) Aerobic Respiration
 - (C) Vermi - digester
 - (D) Deep litter method
17. Which of the following earthworm species is most stable in Indian conditions ?
- (A) *Perionyx*
 - (B) *Epifilis*
 - (C) *Endogens*
 - (D) *Anecique*
18. The _____ worm is commonly known as the “African nightcrawler”.
- (A) *Megascolid esaustralis*
 - (B) *Eudrilus eugeniae*
 - (C) *Aporrectidea longa*
 - (D) *Lumbricus friend*



19. Which of the following is NOT vermicomposting method ?
- (A) Bin (or) Container method
 - (B) Vermicomposting of organic wastes in field pits
 - (C) Vermicomposting of organic wastes on ground heaps
 - (D) Deep litter method
20. What are four R's ?
- (A) Reduce; Reuse; Recycle; Recover
 - (B) Recompost; Reuse; Recycle; Recover
 - (C) Reduce; Resources; Recycle; Recover
 - (D) Reduce; Resources; Reformation; Restore
21. Which of the following nutrients is abundantly found in worm castings ?
- (A) Nitrogen
 - (B) Calcium and other minerals
 - (C) Phosphorus
 - (D) All of these
22. Pick out the one that doesn't belong to vermiculture :
- (A) Vermiwash
 - (B) Vermicompost
 - (C) Vermicast
 - (D) Bioleaching
23. 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
24. What is the major advantage of three - tier vermi - culture 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



25. Endogenic earthworm is _____.
- (A) *Aporrectidea longa* (B) *Lumbricus friendi*
(C) *Allolobophora chlorotica* (D) *Eiseniella tetraedra*
26. 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
27. Which of the following statement is true for epigeic earthworms ?
- (A) They make permanent vertical burrows in soil
(B) They make horizontal burrows through the soil
(C) They live on the surface of the soil in leaf litter
(D) Both (B) and (C)
28. Clitellum is a _____.
- (A) Glandular tissue (B) Muscular tissue
(C) Neural tissue (D) Connective tissue
29. Which of the following is NOT a benefits of Vermicomposting ?
- (A) Improves the physical structure of the soil
(B) Improves seed germination, plant growth and crop yield
(C) Enhances root growth and structure
(D) Impoverish beneficial microorganisms in soil
30. The process of covering spawned compost with a suitable material is known as :
- (A) Composting (B) Spawning (C) Cropping (D) Casing

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SPACE FOR ROUGH WORK



