KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

(3 Pages) **Reg. No:……**

Question Code: 26E01612 **Course Code : 24PSMB21**

PG Degree - End Semester Examinations, April 2026

Second Semester

M.Sc., MICROBIOLOGY

Vermitechnology

(For those who joined in July 2024 onwards)

Time : 3Hours **Maximum : 75 Marks**

PART – A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer :

CO:1 K:1 1. Vermiculture is the cultivation of

(a) Bacteria (b) Earthworms

(c) Fungi (d) Algae

CO:1 K:1 2. *Eisenia fetida* is commonly known as

(a) Tiger worm (b) Red worm

(c) Compost worm (d) All of the above

CO:2 K:2 3. The study of earthworms is called

(a) Entomology (b) Vermiculture

(c) Vermiology (d) Histology

CO:2 K:2 4. Which factor affects the distribution of earthworms in soil?

(a) Temperature (b) Moisture

(c) pH (d) All of the above

CO:3 K:1 5. The process of converting organic waste into nutrient-rich compost using earthworms is called

(a) Composting (b) Vermicomposting

(c) Fermentation (d) Mineralization

CO:3 K:1 6. Which waste material can be used as feed in vermicomposting?

(a) Animal manure (b) Kitchen waste

(c) Paper waste (d) All of the above

CO:4 7. The mesophilic phase occurs during

K:1 (a) Initial composting (b) Middle stage

(c) Maturation stage (d) Harvesting stage

CO:4 8. Ants and rodents are considered as

K:2 (a) Beneficial organisms (b) Predators

(c) Pests in vermicomposting (d) Fertilizers

CO:5 9. Vermiwash is a

K:1 (a) Liquid fertilizer (b) Solid fertilizer

(c) Chemical fertilizer (d) Insecticide

CO:5 10. Vermicompost is mainly used in

K:2 (a) Organic farming (b) Textile industry

(c) Mining (d) Metallurgy

PART – B (5 X 5 = 25 Marks)

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

Answer should not exceed 250 words.

CO:1 11. (a) Define vermiculture and explain its economic importance.

K:3

(OR)

(b) Write short notes on useful species of earthworms.

CO:2 12. (a) Explain the anatomy of earthworms.

K:3

(OR)

(b) Describe the life cycle of *Eisenia fetida*

CO:3 13. (a) Explain the different feed materials used in vermicomposting.

K:4

(OR)

(b) Describe the basic process of vermicomposting.

CO:4 14. (a) Write notes on pests and diseases affecting vermicomposting.

K:4

(OR)

(b) Explain the harvesting methods of earthworms.

CO:5 15. (a) Write notes on vermiwash.

K:3

(OR)

(b) Explain the applications of vermicompost in agriculture.

PART – C (5 X 8 = 40 Marks)

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

Answer should not exceed 600 words.

CO:1 K:3 16. (a) Explain the introduction, history and economic importance of Vermiculture.

(OR)

(b) Discuss the factors affecting distribution of earthworms in soil.

CO:2 K:3 17. (a) Describe the biology and physiology of *Eisenia fetida*.

(OR)

(b) Explain in detail about reproduction of *Eudrilus eugeniae.*

CO:3 K:4 18. (a) Explain the stages of vermicomposting process.

(OR)

(b) Describe the different methods of vermicomposting.

CO:4 K:5 19. (a) Explain the troubleshooting problems in vermicomposting.

(OR)

(b) Discuss separation techniques and harvesting of vermicompost.

CO:5 K:6 20. (a) Explain the applications of Vermiculture biotechnology.

(OR)

(b) Describe the value-added products of Vermiculture.