

# **KAMARAJ COLLEGE (Autonomous)**

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI – 628 003

**(5 Pages)**

**Reg. No: .....**

**Question Code No : 25001612**

**Sub Code : 24PMMB22**

**PG Degree - End Semester Examinations, November 2025**

**Second Semester**

**M.Sc. MICROBIOLOGY**

**Medical Virology and Parasitology**

**(For those who joined in July 2024 onwards)**

**Time : 3 Hours**

**Maximum : 75 Marks**

**PART – A (10 × 1 = 10 Marks)**

**Answer ALL Questions**

**Choose the correct answer:**

1. Which of the following is NOT a characteristic of viruses?
  - (a) They are acellular
  - (b) They can reproduce independently
  - (c) They contain either DNA or RNA
  - (d) They are obligate intracellular parasites
2. What is the genetic material found in viruses?





(b) Outline the pathogenesis and lab diagnosis of Herpes virus infections.

13. (a) Describe the structure of T4 bacteriophage.

**(OR)**

(b) What is lysogeny? How is it important in bacterial genetics?

14. (a) Explain the structural aspects of *Entamoeba histolytica*.

**(OR)**

(b) What is the pathogenicity and treatment of *Leishmania donovani*?

15. (a) Describe the life cycle and pathogenicity of *Taenia solium*.

**(OR)**

(b) Write a note on *Fasciola hepatica* infection.

**PART - C (5 X 8 = 40 Marks)**

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

**Answer should not exceed 600 words.**

16. (a) How do you classify viruses based on their genetics?

**(OR)**

(b) Explain the cultivation of viruses using embryonated eggs, experimental animals and cell cultures.

17. (a) Describe viral entry mechanisms and host defenses against viral infections.

**(OR)**

(b) Compare pathogenesis, diagnosis and treatment of Herpesvirus and Poxvirus infections.

18. (a) Portray the method of replication used by T4 bacteriophages with suitable diagrams.

**(OR)**

(b) Explain lysogenic cycle and its applications in bacterial genetics.

19. (a) Explain in detail about host-parasite relationships.

**(OR)**

(b) Document the life cycle, pathogenesis, diagnosis and treatment of *Entamoeba histolytica*.

20. (a) Compare life cycles and pathogenesis of *Taenia solium* and *T. saginata*.

**(OR)**

(b) Describe the life cycle, diagnosis and treatment of *Ascaris lumbricoides*.