

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION MAY 2025  
(Second Semester)**

Branch – APPLIED MICROBIOLOGY

**VIROLOGY & PARASITOLOGY**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following viruses possess an envelope? a) Herpesvirus                      b) Reovirus c) Tobacco mosaic virus        d) Papilloma virus	K1	CO1
	2	The rabies virus consists of a) Single-stranded RNA        b) Double-stranded RNA c) Single-stranded DNA        d) Double-stranded DNA	K2	CO2
2	3	First time a virus has been synthesized as a non-living crystal a) Pox virus                      b) Flu virus c) Tobacco mosaic virus        d) Bacteriophage	K1	CO1
	4	Which of the following is NOT a common method of transmission for plant viruses? a) Insect vectors                      b) Mechanical injury c) Airborne spores                      d) Seed transmission	K2	CO2
3	5	Which is a filamentous phage with a single-stranded DNA genome a) T <sub>4</sub> b) M13                      c) λ                      d) φx174	K1	CO1
	6	Rolling circle mechanism of replication is distinguished feature of ----- phage a) φx174                      b) M13                      c) λ                      d) T <sub>4</sub>	K2	CO2
4	7	How to identify Cryptosporidium oocysts in stool samples? a) Gram staining                      b) Acid-fast staining c) KOH preparation                      d) Giemsa staining	K1	CO1
	8	Which of the following is a common symptom of acute <i>Toxoplasma gondii</i> a) Persistent cough and wheezing b) Swollen lymph nodes and mild flu-like symptoms c) Severe abdominal pain and diarrhea d) Blistering skin lesions	K2	CO2
5	9	Which of the following conditions is a result of <i>Taenia solium</i> infection? a) Cysticercosis                      b) Ascariasis c) Giardiasis                      d) Schistosomiasis	K1	CO1
	10	Red, itchy welts or bumps on the skin is a common symptom of a a) Sand fly                      b) Lice c) Bed bug                      d) Housefly	K2	CO2

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Outline the replication, diagnosis and control of Parvoviridae.	K4	CO3
		(OR)		
	11.b.	Write detailed account on pathogenicity of Rhabdo virus.		
2	12.a.	Explain the structure, transmission, replication and symptoms of CaMV.	K5	CO5
		(OR)		
	12.b.	Conclude the structure, transmission, replication and symptoms of BMV.		
3	13.a.	Summarize the distinguished features of $\phi$ x174 and its uses.	K4	CO4
		(OR)		
	13.b.	Inference the life cycle of T <sub>7</sub> phage with suitable diagram		
4	14.a.	Explain life cycle and pathogenesis <i>Entamoeba histolytica</i> infection.	K5	CO4
		(OR)		
	14.b.	Interpret the infection associated with <i>Leishmania donovani</i> .		
5	15.a.	Discuss in detail the salient feature and pathogenicity of <i>Paragonimus westermani</i> .	K6	CO5
		(OR)		
	15.b.	Compile the Life Cycle of <i>Fasciola hepatica</i> .		

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain about various Herpes Viruses infect the men and add note on symptoms, diagnosis and treatment.	K5	CO3
2	17	Infer the etiology, symptoms, disease transmission cycle and control measures of TMV.	K4	CO4
3	18	List out the general Features of T4 Phage and its applications in genetic engineering.	K4	CO3
4	19	Elaborate the life cycle, pathogenicity treatment and control measures of Plasmodium infection.	K6	CO4
5	20	Explain the process of morphogenesis in Tick.	K5	CO5

Z-Z-Z

END