


Name:			
Enrolment No:			
UPES End Semester Examination, December 2024			
Course: Sexually Transmitted and Neglected Tropical Diseases Program: M.Sc. Microbiology Course Code: HSMB8017P		Semester : III Duration : 3 Hours Max. Marks: 100	
Instructions: Read all questions carefully.			
S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q 1	Epidemiology is the study of: A) Microbial taxonomy B) Disease incidence, distribution, and control C) Antibodies D) Genetic mutation	1.5	CO1
Q 2	Commonly found microorganism in the vaginal tract and helps maintain acidic pH: A) <i>Escherichia coli</i> B) <i>Lactobacillus</i> species C) <i>Pseudomonas</i> species D) <i>Candida albicans</i>	1.5	CO1
Q 3	Gonorrhoea is caused by: A) Virus B) Bacteria C) Protozoa D) Fungi	1.5	CO1
Q 4	An example of a zoonotic infection is: A) Malaria B) Rabies C) Tuberculosis D) Tetanus	1.5	CO2
Q 5	Bacteria which is commonly found on human skin: A) <i>Escherichia coli</i> B) <i>Staphylococcus epidermidis</i> C) <i>Bacillus anthracis</i> D) <i>Salmonella enterica</i>	1.5	CO2

Q 6	A common hospital-acquired infection is: A) AIDS B) Nosocomial infections C) Tuberculosis D) Malaria	1.5	CO1
Q 7	Choose the key symptom of gonorrhea: A) Joint pain B) Severe headache C) Urethral discharge D) Skin rashes	1.5	CO2
Q 8	The enzyme used by HIV to integrate its DNA into host cells is: A) DNA polymerase B) Reverse transcriptase C) Ligase D) Helicase	1.5	CO2
Q 9	A complication of untreated syphilis in its final stage is: A) Pneumonia B) Stroke C) Dementia and organ damage D) Jaundice	1.5	CO3
Q 10	The best prevention for sexually transmitted infections is: A) Antibiotics B) Safe sexual practices C) Vitamin supplements D) Daily exercise	1.5	CO1
Q 11	The skin has a diverse microbial population that includes bacteria, fungi, and viruses: True/False	1.5	CO1
Q 12	<i>Lactobacillus</i> species help maintain the acidic environment in the vaginal tract, preventing infections: True/False	1.5	CO1
Q 13	Epidemiology is the study of genetic variations within species: True/False	1.5	CO2
Q 14	The gut microbiota plays a crucial role in synthesizing vitamins and aiding digestion: True/False	1.5	CO2
Q 15	Nosocomial infections are always caused by bacteria: True/False	1.5	CO2
Q 16	AIDS is an example of a hospital-acquired infection: True/False	1.5	CO1
Q 17	A commensal relationship is one where both the host and microbe benefit: True/False	1.5	CO1

Q 18	Gonorrhoea can lead to infertility if left untreated: True/False	1.5	CO1
Q 19	HIV is transmitted through blood, sexual contact, and from mother to child: True/False	1.5	CO2
Q 20	Lymphatic filariasis can cause severe swelling and deformities in the limbs: True/False	1.5	CO1
Section B (4Qx5M=20 Marks)			
Q 21	Discuss HIV and AIDS and highlight their differences.	5	CO1
Q 22	Describe the disease progression and symptoms of untreated syphilis	5	CO3
Q 23	Explain the life cycle of lymphatic filariasis and its impact on the human lymphatic system.	5	CO2
Q 24	Illustrate the mode of transmission for soil-transmitted helminths and suggest preventive measures.	5	CO3
Section C (2Qx15M=30 Marks)			
Q 25	<p>A young woman from Bihar, India, develops fever, weight loss, and an enlarged spleen. Laboratory tests reveal <i>Leishmania donovani</i> infection, confirming visceral leishmaniasis.</p> <p>a) Explain the transmission cycle of <i>Leishmania donovani</i> and describe the role of the sandfly vector in the spread of visceral leishmaniasis.</p> <p>b) Discuss the clinical manifestations of visceral leishmaniasis, and how does the disease affect internal organs like the spleen and liver?</p> <p>c) Discuss the current strategies used to prevent and control visceral leishmaniasis in endemic regions of India.</p>	5+5+5	CO3
Q 26	<p>A man in a rural area of India is bitten by a stray dog. Several weeks later, he experiences fever, muscle spasms, and hydrophobia. He is diagnosed with rabies after failing to receive immediate post-exposure prophylaxis (PEP).</p> <p>a) Describe the pathophysiology of rabies infection and the progression of symptoms once the virus reaches the central nervous system.</p>	5+5+5	CO3

	<p>b) Explain the importance of post-exposure prophylaxis (PEP) in preventing rabies after an animal bite.</p> <p>c) List the steps which can be taken to control and prevent rabies in India, especially in rural areas with high stray animal populations.</p>		
<p>Section D (2Qx10M=20 Marks)</p>			
Q 27	Explain the causative agent, symptoms, transmission, and complications associated with Gonorrhoea. How does antibiotic resistance affect treatment options for Gonorrhoea, and what measures are in place to combat this issue?	10	CO2
Q 28	Analyze the impact of Dengue as a neglected tropical disease in India. Describe the transmission cycle, symptoms, preventive strategies, and the importance of vaccination in controlling its spread.	10	CO2