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**School of Biomedical Science****Bachelor of Science in Medical Biotechnology  
Semester End Examination - Jun 2024**

Duration : 180 Minutes

Max Marks : 100

**Sem II - Q1UG204B / C2UH201C Medical Microbiology***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Define what are the key symptoms and diagnostic methods for tuberculosis? K1 (2)
- 2) Explain the theory of abiogenesis and biogenesis. K2 (4)
- 3) Explain amoebiasis, etiology, modes of transmission to humans, sites of infection in the body and its clinical manifestations. K2 (6)
- 4) Illustrate the distinguishing features between Gram Positive and Negative Bacteria. K3 (9)
- 5) Illustrate pathogenesis, Diagnosis and Prevention of Bacillary Dysentery. K3 (9)
- 6) Examine Viral Hemorrhagic Fever (VHF), including its etiology involving various viral families such as Filoviridae and Arenaviridae, modes of transmission to humans, reservoir hosts, clinical manifestations encompassing hemorrhagic symptoms, organ dysfunction, systemic effects and its treatment. K5 (10)
- 7) Analyze Pure Culture Technique. K4 (12)
- 8) Examine the following population, if the doubling period of a bacterial population is 30 min. At time  $t=120$  minutes, the bacterial population was 60,000. a) What was the initial population at time  $t=0$  b) Find the size of the bacterial population after 5 hrs. K5 (15)
- 9) Examine Herpes simplex virus (HSV) infection, including its etiology, modes of transmission to humans, viral replication cycle within host cells, immune response to HSV, clinical manifestations encompassing oral and genital herpes, diagnostic methods, treatment options and strategies for HSV prevention. K5 (15)
- 10) Discuss what is toxoplasmosis, and how does the parasite infect humans and Describe the life cycle of it including its intermediate and definitive hosts, and explain the routes of transmission of toxoplasmosis in humans. K6 (18)