



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)

Re-accredited with an 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test II – October 2025

Semester V

Class: III UG

Major: Biochemistry and Biotechnology

23BBCDE1 Biology of Infectious Diseases

Time: 2 hours

Max. Marks: 60

Course Outcomes:

CO1: Acquainted with various classes of microbial infectious agents, their mode of action, biology of the diseases, transmission of diseases, the concepts of treatment, and drug resistance for various antimicrobial agents.

CO2: Learn molecular basis of diagnosis and treatment of diseases as well as strategies for development of vaccines against these diseases.

CO3: Exposed to the details of important infectious diseases such as tuberculosis, AIDS, malaria, filariasis, etc. which are highly prevalent in tropical countries.

CO4: Understand the significance of hygiene, sanitation, vaccination in prevention of infectious diseases.

CO5: Acquire the knowledge to isolate bacteria, to stain bacteria, fungi, acid fast bacilli and to perform important diagnostic tests for infectious diseases such as WIDAL test

Part A- Answer all questions

(6X1 = 6 Marks)

1. Virus known to integrate its genome into host DNA: CO3K1
 - a. Influenza virus
 - b. HIV
 - c. Herpes simplex virus
 - d. Hepatitis A
2. Which of the following viruses is transmitted by a mosquito vector? CO3K2
 - a. Rabies virus
 - b. Dengue virus
 - c. Hepatitis B virus
 - d. Rotavirus
3. One of the following viruses is NOT enveloped? CO4K2
 - a. Hepatitis B virus
 - b. Poliovirus
 - c. Influenza virus
 - d. HIV
4. What is the causative agent of COVID-19? CO4K2
 - a. SARS-CoV
 - b. MERS-CoV
 - c. SARS-CoV-2
 - d. HCoV-229E
5. The condition most commonly associated with oral candidiasis is CO5K2
 - a. Diabetes mellitus
 - b. Hypertension
 - c. Asthma
 - d. Hyperthyroidism
6. Which organ is primarily affected during the erythrocytic stage of malaria? CO5K2
 - a. Liver
 - b. Spleen
 - c. Brain
 - d. Red blood cells

Part B

3 x 6 = 18

Answer the following

Answers should not exceed 200 words or one page

7. a. Describe the structure of a typical virus. CO3K2

(Or)
7. b. Depict the transmission and symptoms of Dengue fever. CO3K2
8. a. Discuss the epidemiology, clinical features, and control measures of Polio. CO4K3

(Or)
8. b. Explain the structure, replication, and virulence mechanisms of Herpes viruses CO4K2
9. a. Explain the pathogenesis, characteristics, and laboratory diagnosis of Sporotrichosis CO5K3

(Or)
9. b. Describe the host-pathogen interaction in Leishmaniasis and its impact on immune response. CO5K3

Part C

3 x 12 = 36

Answer the following not exceeding 700 words or four pages

10. a. Discuss the history, causative agent, pathogenesis, diagnostics, and treatment of AIDS CO3K2

(Or)
10. b. Describe the pathogenesis, diagnosis, and prevention of Influenza CO3K4
11. a. Write an essay on COVID-19 covering its origin, transmission, diagnostics, and management. CO4K3

(Or)
11. b. Describe the etiology, clinical features, and diagnosis of Candidiasis. Add a note on its treatment CO4K3
12. a. Describe the causative agents, vectors, etiology, pathogenesis, diagnostics, and treatment of Malaria. Add a note on vaccine development CO5K2