

BTECH
(SEM III) THEORY EXAMINATION 2021-22
MICROBIOLOGY & IMMUNOLOGY

Time: 3 Hours

Total Marks: 100

Notes:

- Attempt all Sections and Assume any missing data.
- Appropriate marks are allotted to each question, answer accordingly.

SECTION-A Attempt All of the following Questions in brief		Marks (10X2=20)	CO
Q1(a)	Enlist various parts of bacterial flagella.		2
Q1(b)	Enlist physical methods of sterilization.		3
Q1(c)	Define culture media.		2
Q1(d)	Define Haptens.		2
Q1(e)	Define innate immunity.		3
Q1(f)	Write the functions of MHC molecule.		3
Q1(g)	Define RIA.		2
Q1(h)	Define hypersensitivity.		2
Q1(i)	Write the etiology of tuberculosis.		4
Q1(j)	Write the pathophysiology of amoebiasis.		2

SECTION-B Attempt ANY THREE of the following Questions		Marks (3X10=30)	CO
Q2(a)	Describe the structure of bacterial cell wall.		2
Q2(b)	Explain the process of bacterial conjugation.		3
Q2(c)	Classify various types of haptens.		2
Q2(d)	Write a note on immune tolerance.		2
Q2(e)	Enlist various micro-organisms for industrial use.		3

SECTION-C Attempt ANY ONE following Question		Marks (1X10=10)	CO
Q3(a)	Classify bacteria on the basis of shapes.		2
Q3(b)	Write various methods of control of micro-organisms.		3

SECTION-C Attempt ANY ONE following Question		Marks (1X10=10)	CO
Q4(a)	Classify viruses with examples.		3
Q4(b)	How biological nitrogen fixation takes place through micro-organisms.		3

SECTION-C Attempt ANY ONE following Question		Marks (1X10=10)	CO
Q5(a)	How are the monoclonal antibodies formed?		3
Q5(b)	Compare between humoral and cell mediated immunity.		2

SECTION-C Attempt ANY ONE following Question		Marks (1X10=10)	CO
Q6(a)	Explain various antigen-antibody interactions.		3
Q6(b)	Write the principle and applications of ELISA.		2

SECTION-C Attempt ANY ONE following Question		Marks (1X10=10)	CO
Q7(a)	What do you understand by typhoid? How this disease can be treated?		4
Q7(b)	Write the application of microbiology in treatment of malaria.		3