Enrollment No: _____ Exam Seat No: _____

C. U. SHAH UNIVERSITY

Summer Examination-2022

Subject Name: Immunology

Subject Code: 4SC05IMM1 **Branch: B.Sc. (Microbiology)**

Semester: 5 **Date: 22/04/2022** **Time: 11:00 To 02:00** **Marks: 70**

Instructions:

(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1 **Attempt the following questions:** **(14)**

a)	Define:-Immunology.	01
b)	What is stem cell?	01
c)	What is the role of T cell?	01
d)	What is the Function of B cell?	01
e)	Expand – NK cell.	01
f)	Define – Hapten.	01
g)	What is Epitope?	01
h)	Draw the structure of Antibody.	01
i)	Antibody produced by which cell?	01
j)	Expand :- MHC	01
k)	Write down the examples of Immunodeficiency disorders	01
l)	Define :- Tumor Markers	01
m)	Expand – SCID	01
n)	What is Cross reactivity?	01

Attempt any four questions from Q-2 to Q-8

Q-2 **Attempt all questions** **(14)**

(a)	Write a detail note on ELISA.	07
(b)	Write a detail note on causes and therapy for cancers.	07

Q-3 **Attempt all questions** **(14)**

(a)	Write a detail note on generation of Cell mediated Immune Response.	07
(b)	Write a detail note on Agglutination.	07

Q-4 **Attempt all questions** **(14)**

(a)	Write a detail note on Monoclonal and Chimeric antibodies	07
(b)	Write a detail note on Bone Marrow.	07

Q-5		**Attempt all questions**	**(14)**
	(a)	Write a detail note on Major Histocompability complex	07
	(b)	Write a detail note on DiGeorge syndrome	07
Q-6			**(14)**
		Write down a detail note on Structure, Functions and Properties of: Immune Cells - T cell, B cell, NK cell, Macrophage, Mast cell, Dendritic cell	
Q-7			**(14)**
		Write a detail note on Structure, Types, Functions and Properties of antibodies.	
Q-8		**Attempt all questions**	**(14)**
	(a)	Write down the difference between Innate Immunity & adaptive Immunity.	07
	(b)	Write a detail note on Contributions of scientists for the development of field of immunology - Edward Jenner, Karl Landsteiner, Robert Koch	07