## C. U. SHAH UNIVERSITY Winter Examination-2022

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## **Subject Name : Immunology**

Subject Code : 4SC05IMM1		e : 4SC05IMM1	Branch: B.Sc. (Microbiology)	
Seme	ster: 5	Date: 24/11/2022	Time: 02:30 To 05:30	Marks: 70
Instru (1 (2 (3 (4	(ctions: ) Use ) Instr ) Drav ) Assu	of Programmable calculator & any othe actions written on main answer book a neat diagrams and figures (if necessa me suitable data if needed.	er electronic instrument is proh re strictly to be obeyed. ry) at right places.	ibited.
Q-1		Attempt the following questions:		(14)
Atten	a) b) c) d) e) f) g) h) i) j) k) l) m) n)	Define Antigen. Name the immunoglobulin that can can Name the immunoglobulin that is resp Define Precipitation reaction. What are the differences between Anti- Write any two examples of antigen-pa- Write any two examples of agglutinat Enumerate central (Primary) lymphoi What is MALT? Enlist the contributions of Karl Lands What is epitope? Enlist the types of tumor antigens. What is the difference between Autog Give any two examples of primary im four questions from O-2 to O-8	coss the placenta. ponsible for type-1 hypersensit igen and Hapten? resenting cells. ion test. d organs. teiner in brief. graft and Allograft? imunodeficiency diseases.	1 ivity. 1 1 1 1 1 1 1 1 1 1 1 1 1
Q-2	1 2	Attempt all questions Define and classify immunity with su Explain mechanism of innate immuni	itable examples. ty.	(14) 7 7
Q-3	1 2	Attempt all questions Describe structure and functions of Ig Describe structure and functions of Ig	G. M.	(14) 7 7
Q-4	1	<b>Attempt all questions</b> Describe hybridoma technique. Ment antibodies	on important uses of monoclor	(14) nal 7
	2	Describe classical pathway of comple	ment activation.	7
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Q-5		Attempt all questions	(14)
	1	Classify hypersensitivity. Describe type – 1 hypersensitivity reaction.	7
	2	Describe characteristics of an antigen in detail.	7
Q-6		Attempt all questions	(14)
÷	1	Describe principle, types and uses of ELISA.	7
	2	Describe the principle and applications of flow cytometry.	7
Q-7		Attempt all questions	(14)
•	1	Describe mechanism of autoimmunity with suitable examples.	7
	2	What is combined immunodeficiency? Describe SCID in detail.	7
<b>Q-8</b>		Attempt all questions	(14)
•	1	Describe endocytic pathway of antigen processing and presentation.	7
	2	Describe development and maturation of T cell in thymus.	7

