Seat No.	•	
Scat 110.		_

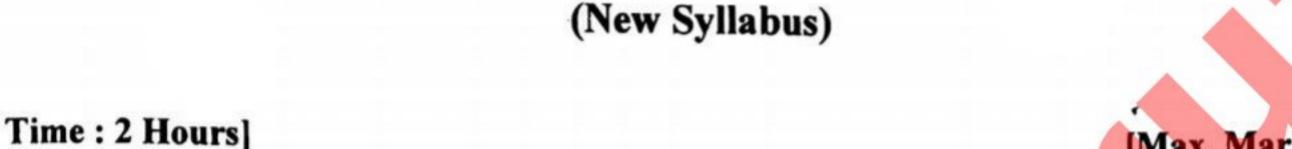
## **JI-123**

January-2021

B.Sc., Sem.-V

CC-303: Microbiology

## (Principles of Immunology)



[Max. Marks: 50 Instructions: (1) Students should write the answers from the question paper applicable to them; either "NEW COURSE" or "OLD COURSE" and it must be mentioned at the beginning of the answer paper. Answer any three (3) questions out of eight (8) questions. Question (2) No. 9 is compulsory. (3) Draw figures wherever necessary. Figures to the right indicate marks. (4) Explain in detail: Types of acquired immunity. 14 Discuss in detail about lymphnode. 2. Describe the characteristics of immune response. (B) Describe in detail the classes of antibody. 3: 14 Discuss in detail: types of antigens. Write a note on: adjuvant and its types. (B) 14 Explain in detail: ELISA What is immunofluorescence? Explain direct and indirect immunofluorescence. 7 Explain RIA. (B)

P.T.O.

14

Write in detail about Transplantation immunity.

7.

- 8. (A) Write in detail about Type 4 hypersensitivity.
  - (B) Give a brief introduction to blood banking.

,

9. Give short and specific answers in 1-2 lines only: (any eight)

8

- (1) What are CD8 cells?
- (2) On which cells do you find class I MHC molecule?
- (3) Define Species immunity.
- (4) What is secondary immune response?
- (5) Define: Epitope
- (6) Give 2 examples of adjuvant.
- (7) Which class of immunoglobulin is able to cross placenta?
- (8) Who invented the hybridoma technology for monoclonal antibody production?
- (9) Define: agglutination.
- (10) What is SRID?
- (11) Give any one example of a fluorescent dye.
- (12) Who won the Nobel prize for the development of RIA?
- (13) Which envelope glycoprotein present on HIV binds to CD4 protein on T<sub>H</sub> cells?
- (14) What are Rhogam antibodies?
- (15) What is Bombay blood group?
- (16) Define: xenograft.

Seat	No.	:	
------	-----	---	--

## JI-123

January-2021

B.Sc., Sem.-V

CC-303: Microbiology

## (Principles of Immunology)

(Old Syllabus)

Tin	ne : 2 Hou	rs		[Max. Marks: 5	0
	tructions :		Students should write the answers from the question processed to them; either "NEW COURSE" or "OLD COURSE" be mentioned at the beginning of the answer paper.  Answer any three (3) questions out of eight (8) questions.  Draw figures wherever necessary.  Figures to the right indicate marks.	E" and it must	
1.	Explain	in deta	il: Types of Immunity.		14
2.	(A) Wr (B) Dis	ite a no	ote on: Monoclonal antibodies.  ne structure and function of one central lymphoid organ.		7 7
3.	Explain i	n detai	il the basic structure of immunoglobulin molecule.		14
4.			arious types of antigens.  detail: RIA		7
5.	Describe	givin	examples different types of Autoimmune disease	ses.	14
6.	(A) Dis	cuss T	ype I Hypersensitive reactions in detail.  ny two Primary immunodeficiency diseases.		7 7
7.	Enlist and	d expla	in: Types of vaccines.		14
JI-1	23		3	P	.T.O

8. Explain ABO blood grouping system in detail. Give a brief outline of blood constituents. (B) 9. Give short and specific answers in 1-2 lines only: (any eight) Define Herd immunity. (1)Which cells serve as antigen presenting cells? (2)(3) Which are the two arms of Immune response? (4) Name two secondary lymphoid organs. (5) Define: Hapten. (6) What is Freund's complete adjuvant made up of? Which class of immunoglobulin has a pentameric structure? (7) What is the full form of ELISA? (8)

8

(11) What is xenotransplant?

Define anaphylaxis.

(10) What is the full form of SCID?

(9)

- (13) Who gave the ABO blood grouping system?
- (14) What are lectins?
- (15) Give the full form of BCG.
- (16) Give one hazard of vaccine.