1006E567

Candidate's Seat No:

M.Sc Sem.-2 Examination

P - 410

Cancer Biology June 2022

[Max. Marks: 50

Instructions:

Time: 2-00 Hours]

All Questions in Section I carry equal marks
Attempt any THREE questions in Section I
Question IX in Section II is COMPULSORY
Illustrate your answers with neat and labeled diagram wherever necessary

Section I

Q-1	A B	What are the barriers in the immune system? Discuss various classes of Immunoglobulins - IgG, IgA and IgE in detail.	7 7
Q-II	A B	Describe morphology, concentration and function of B lymphocytes. Describe the Antigen-Antibody Reaction and its uses in clinical tests.	7 7
Q-III	Α	What are the three pathways of complement system? Describe any one.	7
	В	Explain structure of Antibody and Effector functions of antibody.	7
Q-IV	A B	What are eosinophils? Discuss its role in cancer. Write a note on Immunoglobulin gene rearrangement.	7 7
Q-V	Α	Explain Law of Self MHC Restriction in antigen processing and presentation.	7
	В	Write a note on Cytokine Receptors.	7
Q-VI	Α	What is Histocompatibility? Narrate an experiment that proved that Graft Rejection is Under Genetic Control	7
	В	Short note on NK Cell Receptors and their functions.	7
Q-VII	Α	Discuss mechanism of Cytosolic Pathway in response to pathogen	7
	В	infection in the human body. Describe how T Cell Development occurs.	7
Q-VIII	A B	Discuss structure and functions of MHC Class I and Class II molecules. Describe which major molecules are important for B Cell Function.	7 7
	D	Describe which major molecules are important for D Cell Function.	1

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Section II

Q-IX

Α	Multiple Choice Questions Which of the following cytokines are produced by TH1 cells?						
a c	IL-2 and TNF-β IL-5 and IL-6	b d	IL-4 and IFNγ IL-10 and TGF-β				
B a	Antibody dependent cell b Lysis of host cells						
С	mediated cytotoxicity Activation of the alternative complement pathway		Opsonisation for increased uptake by phagocytic cells				
C a	Which three types of genes are HLA-A, B and C	b	HLA-AC, BC and CC				
С	HLA-AB, BC and CD	d	HLA-H, I and D				
D	Which of the following does primary antibody response?	not	occur during the lag period of				
а	Activation of helper T cells	b	Class switching to IgG				
С	Presentation of antigen with MHC II	d	Binding of antigen to BCRs				
E	The initial complement component that is bound by complement-fixing antibodies is						
а	C1		C1q				
С	C1s		C1r				
F a c	The antigen binding site of anti Variable region of light chain Variable region of both heavy	b	Variable region of heavy chain				
	and light chains						
G	In human, MHC molecules are present on						
a	Chromosome 2	b d	Chromosome 4 Chromosome 9				
С	Chromosome 6	u	On oniosonio o				
Н	What is the meaning of thymus independent B cell activation?						
а	Without the participation of T cells	b					
С	Thymus do not take part in its activation	d	Affinity maturation takes place in thymus				

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