## 1105E176

Candidate's Seat No :\_\_\_\_

MSc Sem.-3 Examination
502

Time: 2-00 Hours]

CB (Tumor Immunology) May 2022

[Max. Marks: 50

## Instructions:

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-I	Α		7			
	В	Explain in detail the relation between immune system and cancer.	7			
Q-II	Α	Name the different causative molecules for metastasis and describe any one in detail.				
	В	Explain in detail how dendritic cells act in tumor microenvironment?	7			
Q-III	Α	Describe tyrosine kinase. List out different mechanisms by which it acquires transforming functions.	7			
	В	What are the changes observed in expression of HLA molecules in relation to cancer?	7			
Q-IV	A	Write a short note on seven transmembrane receptors.	7			
	В	Define immunomodulation, immunoselection, enhancing antibodies and immunostimulation.	7			
Q-V	Α	What are Predisposition Biomarkers, Diagnostic Biomarkers, and Prognostic Biomarkers?	7			
	В		7			
Q-VI	Α	What is Tumor Marker? Explain role of PSA, CEA, HCG and AFP as tumor markers in cancer patient's care.	7			
	В	5.7.2.4.1.1.2.3.3.1.3.3.3.3.3.3.3.3.3.3.3.3.3.3	7			
Q-VII	A	Discuss "Significance of Liquid Biopsy" in Cancer Biology.	7			
	В	Explain role of cytokines in cancer immunotherapy.				

		E-17	6-	0			
Q-VIII	Α	Define Accuracy, Precision, Sensitivity, Specificity, Positive Predictive					
		Value and Negative Predictive Value.					
	В	What is Chimeric Antigen Receptor (CAR) T-cell Therapy?					
		Section II					
Q-IX		Multiple Choice Questions					
	Α	Strongly immunogenic tumors appear					
	a	In virtually all patients	b	Only in experimental animals			
	С	In immunosuppressed patients	d	Only in elderly patients			
	В	of the following TGF-β receptors has no signalling domain.					
	a	TGF—β1		TGF—β2			
	С	TGF—β3	d	TGF—β4			
	С	A new DC subset described in mice characteristics of NK cells, plasmacytoid DC (similar to both DC and B cells) and normal DC is called					
	а	KDIC	b	NKDC			
	C	IKDC	d	DCNK			
	D	Imiquimod is used for treating					
	a	Oral cancer	b	Skin cancer			
	C	Bladder cancer	d	Ovarian cancer			
	E	E In the case of partial tumor elimination, the theory of immunoediting is that a temporary state of equilibrium can then develop between the immune system and the					
	а	B-cells	b	T-cells			
	C	developing tumor	d	macrophages			
	F						
	а	PSA	b	AFP			
	C	CA 125	d	B HCG			
	G	In assay validation procedure,		t of detection indicates			
	a	Precision of the assay	b				
	C	Accuracy of the assay	d	Sensitivity of the assay			
	Н	is approved as therapeutic vaccine for patients with early-stage bladder cancer.					
	а	Sipuleucel-T	b	BCG			
	C	Cervarix	d				
	-			and the same of th			