Seat No. : _____

AK-103

April-2023

B.Sc., Sem.-IV

205 : Biochemistry
(Advanced Physiology)

Time : 2:30 Hours] **[Max. Marks : 70**

Instructions : (1) **All** Questions carry equal marks.
(2) Illustrate your answers with neat diagrams wherever necessary.

1.	(A)	Explain saturation curve of Hemoglobin and the factors affecting it.	**9**
	(B)	Write a note on respiratory regulation of Acid-Base balance.	**5**
		OR	
	(A)	Discuss in detail transport of Carbon dioxide in tissues and lungs.	**9**
	(B)	List the differences between Bohr's effect and Haldane's effect.	**5**
2.	(A)	State the role of following in GI tract : (1) Trypsin (2) Intrinsic factor (3) Enterokinase (4) Pancreozymin	**8**
	(B)	Explain Intestinal Putrefaction.	**6**
		OR	
	(A)	Explain the digestion and absorption of Lipids in the GI tract.	**9**
	(B)	Discuss the functions of HC1.	**5**
3.	(A)	Describe the structure of a Nephron with a labelled diagram.	**8**
	(B)	Discuss Obligatory and Facultative reabsorption of Water.	**6**
		OR	
	(A)	Discuss the functions of Kidneys.	**9**
	(B)	Write a note on Tubular load. Define Glomerular filtration rate.	**5**
4.	(A)	Discuss the functions of Blood.	**8**
	(B)	Discuss briefly ABO system of Blood Grouping.	**6**
		OR	
	(A)	Discuss the intrinsic and extrinsic pathway of blood coagulation.	**8**
	(B)	Discuss briefly different types of WBCs.	**6**

5. Answer in brief : (Any **Seven**) **14**

(1) Give any two important characteristics of Hemoglobin.

(2) Define inhalation and exhalation.

(3) What is Chloride shift ?

(4) State the role of Gastrin.

(5) Define Digestion.

(6) What is Intestinal fermentation ?

(7) Define Tmax. What is Tmax for Glucose ?

(8) List any two normal and any two abnormal constituents of urine.

(9) Draw a labelled schematic diagram of Sodium-Glucose symporter or co-transporter.

(10) State any two functions of Plasma Proteins.

(11) Write full form of ESR and define it.

(12) State any two conditions when RBC count varies.