

Seat No. : _____

AK-119

April-2015

B.Sc., Sem.-IV (CBCS)

Paper – 205 : Biochemistry

(Physiology of Various Systems)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :**
- (1) All questions carry equal marks.
 - (2) Mention clearly the option you attempt.
 - (3) Draw labelled diagrams wherever necessary.

1. (a) Discuss Oxygen-Hemoglobin saturation curve and the factors affecting it. **11**
- (b) Write a note on External Respiration. **3**

OR

- (a) Discuss the transport of Carbon dioxide in tissues & lungs. **10**
- (b) Discuss Respiratory acidosis and alkalosis. **4**

2. (a) Discuss in detail the digestion and absorption of Proteins in the GI tract. **8**
- (b) Write a brief note on Fermentation. **6**

OR

- (a) Discuss in detail the digestion and absorption of Carbohydrates in the GI tract. **8**
- (b) Discuss the secretion and function of Hydrochloric acid in Stomach. **6**

3. (a) Discuss the abnormal constituents of Urine. **8**
- (b) Discuss obligatory & facultative reabsorption of water in Renal tubules. **6**

OR

- (a) Discuss Tubular load, T_{max}, & plasma clearance. **9**

- (b) Discuss the role of Aldosterone in Urine formation. 5
4. (a) Discuss the functions of Blood. 8
- (b) Discuss the hazards of incompatible Blood transfusion. 6

OR

- (a) Write a brief note on Platelets. 7
- (b) Discuss the intrinsic and extrinsic mechanism of Blood Coagulation. 7
5. Answer in brief :
- (1) Define tidal volume & residual volume of lungs. 2
- (2) Define Putrefaction. 2
- (3) What are Chylomicrons and their components ? 2
- (4) Name the types of nephrons. 1
- (5) Draw a labelled schematic diagram of sodium–glucose symporter. 2
- (6) Draw and write the normal value of Neutrophils and Monocytes. 2
- (7) Define and write the full form of ESR. 2
- (8) Write any one factor that affects GFR. 1
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