

Seat No. : _____

AA-124

April-2019

B.Sc., Sem.-IV

CC-205 : Bio-chemistry

Time : 2:30 Hours]

[Max. Marks : 70

- Instructions :**
- (1) All questions are compulsory.
 - (2) Figure on the right indicate marks.
 - (3) Mention clearly the option you attempt.

1. (a) Explain in detail oxygen dissociation curve and the factors affecting it. 14

OR

Answer the following :

- (i) Explain internal and external respiration. 7
- (ii) Discuss the transport of carbon dioxide in our body. 7

- (b) Answer the following (any **four**) briefly. 4

- (1) Define Tidal Volume.
- (2) What is Bohr's effect ?
- (3) What is the function of Epiglottis ?
- (4) What is deoxy Hemoglobin ?
- (5) What is the normal residual volume of lungs in a healthy person ?
- (6) What is respiratory Acidosis ?

2. (a) Discuss the digestion and absorption of Proteins in detail. 14

OR

Answer the following :

- (i) Write a note on Intestinal Putrefaction. 7
- (ii) Describe composition and functions of Bile. 7

- (b) Answer the following (any **four**) briefly. 4
- (1) Define Digestion.
 - (2) Name the mechanism of absorption of sugar and amino acids in our body.
 - (3) State the role of Enterokinase.
 - (4) Name the hormones of Pancreatic juice.
 - (5) State mechanical role of Saliva.
 - (6) Define Intestinal Fermentation.
3. (a) Describe the structure of Nephron with a labelled diagram. Discuss Glomerular Filtration in Nephrons. 14
- OR**
- Answer the following :
- (i) Discuss Tubular load and Plasma clearance in Renal tubules. 7
 - (ii) Discuss any five abnormal constituents of urine. 7
- (b) Answer the following (any **three**) briefly. 3
- (1) Define GFR.
 - (2) Name any two normal constituents of Urine.
 - (3) What is T_{max} ?
 - (4) What is obligatory reabsorption in Renal tubules ?
 - (5) Name two hormones which play an important role in urine formation.
4. (a) Discuss the entire process of blood coagulation in detail. 14
- OR**
- Answer the following :
- (i) Discuss briefly any seven functions of Blood. 7
 - (ii) Draw and describe different types of WBCs. 7
- (b) Answer the following (any **three**) briefly. 3
- (1) Name the Plasma proteins.
 - (2) What is the normal count of Platelets ?
 - (3) What is Haematopoiesis ?
 - (4) According to the ABO system, how many types of Blood Groups are there ?
 - (5) Name any one physiological condition when the RBC count is high.
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