



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 4th Semester Supplementary Examination, 2021

ZOOACOR09T-ZOOLOGY (CC9)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

1. Answer any **eight** questions from the following: 2×8 = 16
- (a) Name any two chief proteins of milk.
 - (b) What is ketosis and ketonuria?
 - (c) Give two functions of saliva.
 - (d) What is chloride shift?
 - (e) What do you mean by vital capacity and residual volume?
 - (f) What is haemoglobin?
 - (g) What are blood groups? Name the main blood groups.
 - (h) What do you mean by Cardiac output?
 - (i) What is the function of basophil?
 - (j) Name any two organs associated with osmoregulation in bony fish.
 - (k) What is juxtaglomerular apparatus?
 - (l) What is renin? Mention its origin.
 - (m) What do you mean by diabetes insipidus?
 - (n) What is the difference between glomerulus and Bowman's capsule?
 - (o) State the function of S.A. node.
2. Answer any **three** questions from the following: 3×3 = 9
- (a) Where does digestion of protein begin? What is essential amino acid? In which organ urea is synthesised? 1+1+1

- (b) Name the main inspiratory and expiratory muscle. Compare the composition of expired air and inspired air. $1\frac{1}{2}+1\frac{1}{2}$
- (c) What is blood pressure? Explain the difference between systolic, diastolic and pulse pressure. 1+2
- (d) Define cardiac cycle and describe the course of circulation of blood through human heart during each cardiac cycle with a neat diagram. 3
- (e) What is the amount of glomerular filtration per day? What is the volume of urine excreted in 24 hours? What are nitrogenous constituents of urine? Name two hormone which act on renal tubules. $\frac{1}{2}+\frac{1}{2}+1+1$
- (f) What do you mean by regulation of acid-base balance in human body? What are the importance of acid-base homeostasis in the body? 1+2
3. Answer any **three** questions from the following: $5\times 3 = 15$
- (a) How are carbohydrates digested and absorbed in our body? 5
- (b) How do you explain the oxygen dissociation curve? Draw a suitable diagram in support of your answer. 3+2
- (c) What do you mean by Systemic and Pulmonary Circulation? Draw a well labelled diagram showing different structure involved in Systemic and Pulmonary Circulation. 2+3
- (d) Describe the main steps in coagulation of blood with proper flowchart. 3+2
- (e) Differentiate between the mechanism of Osmoregulation in fresh water fish and in shark. 5
- (f) What is nephron? Name the different parts of nephron with a diagram. 1+2+2

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

—×—