

B.Sc. 4th Semester (Honours) Examination, 2021

Subject: ZOOLOGY

Course ID: 42612

Course Code: SH/ZOO/402/C-9

Course Title: Animal Physiology

Full Marks: 25

Time: 1Hr 15 Mins.

*The figures in the right hand margin indicate full marks.
Candidates are required to give their answers in their own words.*

UNIT- I

1. Answer *any five* of the following questions: (1x5=5)

- a. What is isomaltase?
- b. What is aquaporin?
- c. Define methaemoglobin.
- d. What is the role of 2,3 BPG in oxygen transport?
- e. What is myocardial infarction?
- f. Define isometric relaxation period.
- g. What is Bombay Phenotype?
- h. State the basic difference between Totipotent and Pluripotent stem cell.

UNIT II

2. Answer *any two* of the following questions: (5x2=10)

- a. Briefly describe the absorption process of different types of monosaccharides. What is the role of Na⁺-K⁺ pump in glucose absorption?
3+2=5
- b. What is hemostasis? Briefly describe the process of platelet plug formation.
1+4=5
- c. What is rhythmicity center? Briefly present the mechanism of breathing in human. 1+4=5
- d. Write short notes on the following: (3+2)
 - i. Podocytes
 - ii) Renin – angiotensin system

Signature of Moderators _____

Date _____

UNIT III

3. Answer *any one* of the following questions:

(10x1=10)

a. Draw a diagram showing the flow of oxygenated and deoxygenated blood in human heart. Briefly describe cardiac cycle with proper illustration.

3+7=10

b. Mention the role of kidney in acid base balance. Briefly describe the transport of oxygen by haemoglobin in human.

4+6=10

XXXXXXXXXXXXXXXXXXXX

Signature of Moderators _____

Date _____