# U.G. 4th Semester Examination - 2022

# ZOOLOGY

## [HONOURS]

**Course Code : BZOOCCHC 402**

**Course Title : Animal Physiology: Life sustaining systems**

Full Marks : 30 Time : 2 Hours

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** questions: 1×10=10

a) What is mitral valve?

b) Write down the names of two salivary enzymes.

c) Name the main regions of human stomach.

d) Why desert animals produce concentrated urine and dry feces?

e) Differentiate artery and vein.

f) State the function of goblet cell.

g) What are osmoconformers?

h) Mention the main function of podocytes.



i) Name the vitamin that helps in blood clotting.

j) What is the precursor of platelets?

k) What is the cause of cyanosis?

l) Where does chloride shift take place?

m) What is the function of bile?

n) Define cardiac output.

o) Which hormone stimulates RBC production?

2. Answer any **five** questions: 2×5=10

a) Describe the roles of pancreatic juice and intestinal juice in nucleic acid digestion.

b) What is the role of colony stimulating factor (CSF) in hematopoiesis?

c) Explain chloride shift.

d) How do you differentiate homeotherms and poikilotherms?

e) "Pancreas has both endocrine and exocrine activities"—Explain the statement.

f) Explain erythroblastosis foetalis.

g) Why chloride content of RBCs is more in venous blood than that of arterial blood?

h) What do you mean by vital capacity and tidal volume?

3. Answer any **two** questions: $5 \times 2 = 10$

a) Draw and label the LS of kidney. Differentiate cortical and juxtamedullary nephron. $2\frac{1}{2} + 2\frac{1}{2}$

b) Schematically describe the extrinsic pathway for initiating blood clotting with special reference to the role of $Ca^{++}$. 5

c) What is thermogenesis? Describe the counter current system of temperature control in human body. 2+3

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