

U.G . 2nd Semester Class test (NEP)
Department of Zoology
Raghunathpur College
Course code -BZOOMAJ02C (Major)

Full Marks 60

Time 3 hours

1 Answer any ten questions from the following :

2 X 10 =20

- a. What is the evolutionary significance of metamorphosis?
- b. Give the distribution of dipnoans.
- c. What is the role of calcium in muscle contraction?
- d. Write down the function of endostyle.
- e. How do you differentiate protochordata from the chordata ?
- f. Differentiate chyme and chyle.
- g. What is the effect of 2,3-BPG on the oxygen dissociation curve?
- h. Comment on the location and function of Hatschek's pit.
- i. How does snake venom affect the nervous system?
- j. What is the role of the macula densa cells?
- k. What is rete testis and its function?
- l. What hormones are secreted by the posterior pituitary gland and their functions?
- m. What are inhibitory neurotransmitters and give two examples?
- n. How do you differentiate actin and myosin?
- o. Why chloride content of RBCs is more in venous blood than that of arterial blood?

2. Answer any six questions from the following : 5X 6=30

- a. Briefly describe the hormonal regulation urine formation.
- b. Write down the source of glucocorticoid hormones and its function.
- c. Mention different types of cell in pituitary with their function
- d. Draw and describe the ultra structure of a mammalian sperm.
- e. Write a note on the hormonal regulation of the menstruation cycle.
- f. What are the extrinsic and intrinsic pathways of blood coagulation? Draw a flow chart of these pathways. 2+ 3
- g. Name the GI tract associated glands and their functions.
- h. Draw and describe the excretory system of *Branchiostoma*.
- i. Describe the mechanism of Carbon-di-oxide transport.

3. Answer any one question from the following: 1X 10=10

- a. What is the saltatory nerve conduction? Describe the process of synaptic transmission with proper diagram. 2 + (6+)
- b. Briefly describe the mechanism of cardiac cycle with diagram. What is IRV and TLC? 7+3
- c. Briefly describe the progressive changes and retrogressive changes in metamorphosis of frog. 5+5