

U.G. 6th Semester Class test (NEP)
Department of Zoology
Raghunathpur College
Course Title: Clinical Physiology
Course code –BZOOMAJ08C (Major)

Full Marks: 60

Time: 3 hours

1. Answer any ten questions from the following: 2×10=20

- a) What is Exophthalmic Goitre?
- b) What is chime and chyle?
- c) Differentiate between Monosynaptic and Polysynaptic reflexes.
- d) Write down the composition and function of Cerebrospinal Fluid (CSF).
- e) Distinguish between Broca's Aphasia and Wernicke's Aphasia.
- f) What is bradycardia?
- g) Name the ossicles of middle ear.
- h) What is astigmatism?
- i) Name the parts of the brain stem.
- j) What is endochondral ossification?
- k) Why is the thalamus referred to as the "Relay Station" of the brain?
- l) Compare the structural differences between an artery and a vein.
- m) Name four histological layers of the Alimentary Canal.
- n) Name the functional units of the thyroid gland and the cells responsible for calcitonin secretion.
- o) What are growth factors, and how do they differ from hormones in terms of their site of action?

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

- a) Describe the three histological zones of the adrenal cortex and the specific physiological functions of the hormones produced in each zone.
- b) Name the hormones secreted by the GI tract and their primary targets.
- c) Describe kinesthetic sensations and their pathways.
- d) Write down the differences among osteoblasts, osteocytes and osteoclasts.
- e) Outline the chemical digestion of carbohydrates, starting from the mouth to the small intestine, naming the specific enzymes involved at each stage.
- f) Write down the composition of saliva.
- g) Describe ascending tracts carrying touch and pain sensations.
- h) Explain location and role of different Baro- and chemoreceptors with respect to blood pressure regulation.
- i) Briefly define the transition from short-term memory to long-term memory (consolidation) and the role of the Hippocampus.
- j) What is Fick's principle? How cardiac output is determined using Fick's principle? 2+3

3. Answer any one question from the following: $1 \times 10 = 10$

- a) Briefly describe the mechanism of cardiac cycle with diagram. What is Vasomotor reflexes? 8+2
- b) Define reflex action. Describe reflex arc, classification and properties of reflexes. 2+2+2+2
- c) What is the hypothalamo-hypophyseal portal system, and what is its significance? Describe the mechanism of action of steroid and non-steroid hormones with example. 2+2+6