

**B.Sc. 3<sup>rd</sup> Semester (Hons.) Examination, 2021 (CBCS)**

**Subject: Zoology**

**Paper: CC - 6**

**(Animal Physiology: Controlling & Coordinating Systems)**

**Full Marks: 40**

**Time: 2 Hrs**

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

*Answer any **eight** questions of the following:*

**$5 \times 8 = 40$**

1. Describe briefly structure and functions of the squamous epithelial tissue.
  2. Represent histological architecture of a thyrofollicle with a neat diagram.
  3. Compare and contrast functional mechanisms of chemical and electrical synapses.
  4. Give a brief account of the ultra structure of striated muscle.
  5. Elaborate crucial role of  $\text{Ca}^{2+}$  in muscle contraction.
  6. Draw a labeled diagram of the sectional view of mammalian seminiferous tubule.
  7. Point out the role of one hypophyseal hormone and one ovarian hormone in the regulation of menstrual cycle.
  8. Give a diagrammatic representation for generation of the action potential.
  9. Schematically represent signal transduction pathway of any one of the non-steroidal hormones.
  10. Name two major placental hormones. Add a brief note on their functions.
-