सत्यं शिवम् सुन्दरम्

WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 2nd Semester Examination, 2023

FNTACOR04T-FOOD AND NUTRITION (CC4)

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer any *four* questions from the following

10×4 = 40

1. (a) What are the differences between sympathetic and parasympathetic nervous systems?

   (b) What is myasthenia gravis?

   (c) Name two types of cholinergic receptors.

   (d) What is isometric contraction?

   4+2+2+2

2. (a) Briefly describe the mechanism of transmission of impulses through the chemical synapses.

   (b) Briefly describe the electron microscopic structure of skeletal muscle.

   5+5

3. (a) What is Bell-Magendie law?

   (b) What is Babinski reflex?

   (c) Briefly discuss the role of hypothalamus in controlling of feeding and satiety.

   2+3+5

4. (a) Why pituitary gland is known as the *"Master gland"*?

   (b) What are the functions of growth hormone (GH)?

   (c) Discuss briefly the effects of excess growth hormone during childhood.

   2+5+3

5. (a) Discuss in brief the uterine and ovarian changes in normal ovulatory menstrual cycle.

   (b) Define amenorrhoea and dysmenorrhoea.

   6+(2+2)

6. (a) What is spermatogenesis?

   (b) Discuss in brief the different stages of spermatogenesis.

   (c) Mention the functions of prostate fluid and Sertoli cells.

   2+4+(2+2)

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7. (a) Discuss in brief the roles of different hormones in the maintenance of pregnancy.   5+5

   (b) Describe the structure and functions of auditory hair cells.

8. (a) Discuss the steps of biosynthesis of thyroid hormones.   5+5

   (b) Describe the physiological functions of thyroid hormones.

9. (a) Enlist the hormones secreted from pancreas with the name of the particular cells   2+5+3
       where from it is secreted.

   (b) Explain the functions and regulation of secretion of insulin.

   (c) How calcium level is maintained in blood?

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