

If the questions attempted are in excess of the prescribed number, only the questions attempted first up to the prescribed number shall be valued and the remaining ones ignored.

Answers may be given either in English or in Bengali but all answers must be in one and the same language.

Group - A

Answer any six questions

1. a) What is current of injury?
b) Discuss the ionic events that take place during the various phases of the development of a nerve action potential.
c) What is synaptosome?
d) Discuss in brief about the end plate potential (EPP) and miniature end plate potential (MEPP) 2+8+2+8

2. a) Mention the differences between somatic and autonomic reflex arcs.
b) What are meant by superficial and deep reflexes?
c) What is sleep apnoea?
d) Discuss the molecular basis of sensitization. 6+4+3+7

3. a) Describe the auditory pathway with a suitable diagram.
b) What is umami taste modality?
c) Describe the mechanism of olfactory transduction. (7+3) +2+8

4. a) Describe with a suitable diagram the histological structure of human skin.
b) What is meant by heat stress and heat strain?
c) Distinguish between hypothermia and hyperthermia. (3+7) + (3+3) +4

5. a) What are hypothalamic releasing factors?
b) Discuss the functions of PTH.
c) State the endocrinological cause of Cretinism and Diabetes Insipidus. 3+7+(5+5)

6. a) Describe the changes in the ovary and uterus that take place during different phases of a menstrual cycle.
b) Describe with a suitable diagram the histological structure of an ovary of adult female individual.
c) What is spontaneous Ovulation? (5+5) +7+3

7. a) Describe the basic concept and usefulness of lactate threshold and lactate tolerance.
b) What is physical fitness?
c) Discuss the assessment of physical fitness by modified Harvard Step Test method. (5+5) +3+7

8. a) What is noise?
b) Discuss briefly the non-auditory effects of noise on human body.
c) Discuss the causes of water pollution.
d) Discuss about the concept of safe drinking water. 2+8+5+5