

**D 51301**

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Name.....

Reg. No.....

**THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2018**

(CUCBCSS—UG)

Complementary Course

**ZOL 3C 03—PHYSIOLOGY, TOXICOLOGY AND ETHOLOGY**

Time : Three Hours

Maximum : 64 Marks

*Give illustrations and figures wherever necessary.*

I. Fill the blanks. (Each question carries 1 mark). Answer *all* questions :

- 1 Plasma membrane of muscle fibre is called \_\_\_\_\_.
- 2 \_\_\_\_\_ is a food additive.
- 3 Thick filament in a myofibril is \_\_\_\_\_.
- 4 \_\_\_\_\_ is a neurotransmitter.
- 5 Hering- Breuer receptors are present in \_\_\_\_\_.
- 6 Prolonged muscle contraction is called \_\_\_\_\_.
- 7 The functional junction between two neurons is \_\_\_\_\_.
- 8 Presence of excess fluid in the body tissues is called \_\_\_\_\_.
- 9 The process of red blood cell production is known as \_\_\_\_\_.
- 10 Classical Conditioning theory was proposed by \_\_\_\_\_.

(10 × 1 = 10 marks)

II. Short answer questions. (Each question carries 2 marks). Answer any *seven* :

- 11 What is hibernation ?
- 12 What is biomagnification ?
- 11 What is rigor mortis ?
- 14 What is vital capacity ?
- 15 What is muscle twitch ?
- 16 What is coronary thrombosis ?

**Turn over**

- 17 What is node of Ranvier ?
- 18 What is xenobiotics ?
- 19 What is heavy metal toxicity ?
- 20 What is instinctive behaviour ?

(7 × 2 = 14 marks)

III. Paragraph questions. (Each question carries 5 marks) .Answer any *four* :

- 21 What are the different types of learning ? Explain any *two*.
- 22 What is oxygen-haemoglobin dissociation curve ?
- 23 Explain any *two* features of social organization in mammals.
- 24 Write on the ill effects of smoking.
- 25 Explain the structure of haemoglobin.
- 26 Write a note on the hormonal factors that influence behavior.

(4 × 5 = 20 marks)

IV. Essay questions. (Each question carries 10 marks) .Answer any *two* :

- 27 Describe the ultrastructure of skeletal muscle fibre. Explain the biochemical changes associated with muscle contraction.
- 28 Give an account of exchange of gases in human body.
- 29 Explain how a nerve impulse is conducted along a nerve fibre.
- 30 Give an account of human blood and its constituents.

(2 × 10 = 20 marks)