

3 SEM TDC ZOON (CBCS) DSC 3

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(Held in April–May, 2021)

ZOOLOGY

(Discipline Specific Course)

Paper : DSC–3

(**Physiology and Biochemistry**)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks : 1×5=5
- (a) The Krebs cycle is named after ____.
- (b) A single molecule of glucose produces ____ no. of ATP.
- (c) The protein molecules are classified into ____ types.
- (d) Human heart is ____ chambered.
- (e) The lymph carries ____ in the different organs of the body.

2. Write short notes on any *three* of the following : 5×3=15
- (a) Structure of a neuron
- (b) Composition of blood
- (c) Structure of pituitary gland
- (d) Electron transport chain
- (e) Absorption of carbohydrates

3. Write the different steps of glycolysis. 8

Or

What do you mean by TCA cycle? Write the different steps of Krebs cycle. 2+6=8

4. Describe briefly the molecular basis of muscle contraction. 8

Or

What do you mean by myelinated and non-myelinated nerve fibres? 4+4=8

5. Write the mechanism of urine formation. 8

Or

Describe briefly about the hormonal control of menstrual cycle. 8

(3)

6. Explain the transport of oxygen in blood with suitable diagram. 9

Or

Draw a well-labelled diagram of mammalian heart and explain the origin and conduction of cardiac impulse. 4+5=9
