



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL
B.Sc. Programme 3rd Semester Examination, 2021

DSC1/2/3-P3-ZOOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is resting membrane potential?
 - (b) What is tidal volume?
 - (c) What is non-reducing sugar?
 - (d) What is the full form of GFR?
 - (e) Which cell form myelin in neuron?
 - (f) What is deamination?
 - (g) What is the significance of K_m ?
 - (h) Name two hormones secreted by Pancreas.

GROUP-B

2. Answer any **three** questions from the following: 5×3 = 15
- (a) Briefly mention the steps involved in intrinsic pathway of blood coagulation.
 - (b) What is troponin? Briefly describe the electrical properties of skeletal muscle. 2+3
 - (c) Briefly describe the mechanism of synthesis of thyroxine hormone.
 - (d) Describe the mechanism of generation of heart beat.
 - (e) Briefly describe the pathway of urea cycle.

GROUP-C

3. Answer any *two* questions from the following: 10×2 = 20
- (a) Describe the structure of a neuron. Explain the propagation of impulse in a myelinated nerve fibre. 4+6
- (b) Describe the menstrual cycle. Elaborate the role of hormones involved in the regulation of the cycle. 6+4
- (c) Describe the counter current mechanism of urine formation with suitable diagram.
- (d) Briefly describe the pentose phosphate pathway.

—×—