

2019

B.Sc. (Hons)

4th Semester Examination

ZOOLOGY

Paper - C9T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group A

1. Answer any *five* questions of the following : 5×2
- (a) What is juxtaglomerular apparatus ?
 - (b) Mention the basis of ABO blood grouping system.
 - (c) Mention the function of cholecystokin.
 - (d) Define cardiac output. What is its normal value in human ? 1+1=2

[Turn Over]

- (e) What will happen if a Rh⁻ woman marries a Rh⁺ man ? Why ? $\frac{1}{2}+1\frac{1}{2}$
- (f) What are the effects of CO poisoning ? 2
- (g) Why are HSCs known as Multi-potent stem cells ? 2
- (h) Represent oxygen dissociation curve graphically. 2

Group B

2. Answer any *four* questions of the following : 4×5
- (a) Describe the steps of urea synthesis from ammonia mentioning the names of different catalyzing enzymes of every steps.
- (b) Draw and describe the action potential curve of cardiac impulse.
- (c) Describe the different blood coagulating factors and their role in blood clotting process.
- (d) What is chloride shift ? Describe the mechanism of chloride shift. 1+4
- (e) Describe the various functions of bile. 5

(3)

- (f) Elaborate the process of carbohydrate digestion in small intestine. 5

Group C

3. Answer any *one* question of the following : 1×10

- (a) State the difference between osmoconformers and osmoregulators. With a labelled diagram discuss the mechanism of osmoregulation of marine teleosts. 2+(2+6)=10
- (b) Describe the counter-current mechanism in urine formation. Add a note on JGA. 7+3
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