

Q.P. Code – 56942

Previous M.Sc. Degree Examination

OCTOBER/NOVEMBER 2014

(Directorate of Distance Education)

Zoology

(DPA 520) Paper II – PHYSIOLOGY AND BIOLOGICAL CHEMISTRY

Time : 3 Hours}

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer any **TWO** questions from Section-A, **TWO** from Section-B and Section-C is **compulsory**.
- 2) Illustrate the answers wherever necessary.
- 3) Section-D is applicable to only freshers.

SECTION – A

2 × 15 = 30

1. Describe transport of CO₂ in blood.
2. Describe the molecular mechanism of muscle contraction.
3. Explain mechanism of synaptic transmission of nerve impulse.
4. Give an over view of osmoregulation in aquatic animals.

SECTION – B

2 × 15 = 30

5. Write an account on chemistry of nucleic acids.
6. Write step wise oxidative breakdown of fatty acids.
7. Explain the mechanism of enzyme action and inhibition of enzymes.
8. Give an account of different types of chemical bonds.

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SECTION – C

9. Write short notes on any **THREE** of the following : **3 × 5 = 15**

- (a) Digestion and absorption of lipids.
- (b) Physiological effects of temperature change.
- (c) Body fluids.
- (d) Protein folding and denaturation.
- (e) Glycogen synthesis.

SECTION – D

10. Write an account on protein metabolism.

1 × 10 = 10
