

FACULTY OF SCIENCE

B. Sc. III-Year Examination, March / April 2016

Subject : Zoology

Paper – III : Animal Physiology, Genetics and Evolution

Time : 3 Hours

Max. Marks : 100

Note : Draw the diagrams wherever necessary.

Section – A (5x8=40 Marks)

(Short Answer Type)

Note: Answer any **five** questions. Attempt at least one question from each unit.

UNIT-I

- 1 Digestion of Carbohydrates
- 2 Structure of Nephron
- 3 Transport of Carbon dioxide

UNIT-II

- 4 Structure and types of muscles
- 5 Adrenal gland

UNIT-III

- 6 Human Karyotyping
- 7 Hardy Weinberg Law
- 8 Speciation

Section – B (4x15= 60 Marks)

(Essay Answer Type)

Note: Answer **all** questions.

- 9 (a) Explain the process of digestion in different parts of the alimentary canal.

OR

- (b) Discuss the formation of nitrogenous waste material.

- 10 (a) What is cell respiration? Explain the glycolysis in detail.

OR

- (b) Describe the structure and function of heart.

- 11 (a) Explain the sliding filament mechanism in muscle contraction.

OR

- (b) Describe various experiments in identifying DNA as genetic material.

- 12 (a) What are chromosomal disorders? Explain autosomal and sex chromosomal disorders in human beings.

OR

- (b) Write about genetic theory of evolution.
