

AE-782

M.Sc. (Final)
Term End Examination, 2016-17

ZOOLOGY

Paper - II

Vertebrate Anatomy, Physiology, Immunology,
Biomolecules and Metabolic Regulation

Time : Three Hours] [Maximum Marks : 100
[Minimum Pass Marks : 36

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. Give a comparative account of evolution of heart and aortic arches in vertebrates with the help of diagrams and descriptions.

OR

Write short notes on the following :

- (a) Comparative account of human brain and brain of bird

(2)

(b) Pectoral girdles of reptiles, birds and mammals

Unit-II

2. Give a comparative physiology of digestion among vertebrate groups.

OR

Write short notes on the following :

(a) Physiology of photoreception and phonoreception
(b) Osmoregulation in fishes, amphibians and reptiles

Unit-III

3. Explain cells of immune system and their differentiation.

OR

Write short notes on the following :

(a) Innate and acquired immunity
(b) Antigen : Antibodies interactions in-vitro and in-vivo

Unit-IV

4. Describe the general properties and structure of monosaccharides, disaccharides and polysaccharides.

OR

(3)

Write short notes on the following :

- (a) Immobilised enzymes and their applications
- (b) Biological significance and properties of fats, phospholipids and steroids.
