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BF—118—2016

FACULTY OF SCIENCE

B.Sc. (Third Semester) EXAMINATION

NOVEMBER/DECEMBER, 2016

ZOOLOGY

Paper VII

(Comparative Anatomy and Physiology)

(MCQ & Theory)

(Saturday, 10-12-2016)

Time : 2.00 p.m. to 4.00 p.m.

Time—2 Hours

Maximum Marks—40

N.B. :— (i) All questions are compulsory.

(ii) Use separate (OMR) answer sheet for Question No. 1.

(iii) Draw well labelled diagrams wherever necessary.

(iv) All questions carry equal marks.

(MCQ)

1. Select correct answer from the given multiple choice : 10

(i) Nails and hoofs are examples of :

(a) Connective tissue

(b) Bony tissues

(c) Epidermal origin

(d) Cartilage tissue

(ii) Incomplete four chambered heart is found in :

(a) Pisces

(b) Amphibia

(c) Aves

(d) Reptiles

(iii) Induced fit hypothesis of enzyme action was proposed by :

(a) Emil Fisher

(b) Koshland

(c) Krebs

(d) Barnad

(iv) Rickets disease caused due to the deficiency of :

(a) Vitamin-D

(b) Vitamin-A

(c) Vitamin-B₁₂

(d) Vitamin-E

P.T.O.

- (v) All enzymes are :
- Protein and Lipids
 - Protein and Carbohydrates
 - Protein only
 - Lipid and Carbohydrates
- (vi) The digestion of carbohydrates occurs in :
- Stomach
 - Intestine
 - Buccal cavity
 - All of these
- (vii) Right atrium of mammalian heart receives blood from :
- Sinus venosus
 - Pulmonary vein
 - Pre-cavals
 - Pre and Post-cavals
- (viii) The animals excrete the excretory products in the form of urea are called as :
- Ammonotelic
 - Ureotelic
 - Uncotelic
 - Purinotelic
- (ix) The structural and functional unit of nervous system is :
- Ganglian
 - Nephridia
 - Neuron
 - Flame cells
- (x) Cardiac muscles are present in :
- Heart
 - Brain
 - Kidney
 - Liver

(Theory)

2. Give an account of comparative anatomy of integument of vertebrates. 10

Or

Write notes on :

- Comparative account of fish and amphibian kidney
- Structure of synapses.

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3. Explain mechanism of enzyme action with reference to lock and key hypothesis and induced fit model. 10

Or

Write notes on :

- (a) Protein digestion
- (b) Physiology of urine formation.

4. What is respiration ? Explain respiratory organs in man. 10

Or

Write notes on :

- (a) ECG and blood pressure
- (b) Cardiac muscles.

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