



Seat No. \_\_\_\_\_

**HP-003-1012020**

**F. Y. B. Sc. (Sem. II) (CBCS) (W.E.F. 2016) Examination**

**April - 2023**

**Zoology : Paper - Z - 02**

*(Chordate : Systematic Forms & Functions, Genetics, Evolution,  
Physiology, Embryology, Applied Zoology, Reproductive Biology  
and Functional Anatomy of Chordates)  
(Old Course)*

**Faculty Code : 003**

**Subject Code : 1012020**

Time :  $2\frac{1}{2}$  / Total Marks : 70

**Instructions :**

- (1) The right side figure indicates total marks of the questions.
- (2) Draw the figure wherever necessary.

- 1 (a) Write the answers in short : 4
- (1) Give the 2 (two) examples of class Aves.
  - (2) The body of Amphioxus measures about \_\_\_\_ cm in length.
  - (3) Amphioxus is also called as \_\_\_\_\_.
  - (4) How many chambers are present in heart of mammals ?
- (b) Write answers in short : 2
- (1) Draw only diagram of Ova of Amphioxus.
  - (2) General characters of class reptilia (Reptiles).
- (c) Write answers in short : 3
- (1) Blastulation in amphioxus.
  - (2) Classify the animal weaver bird with reasons.
- (d) Write answers in short : 5
- (1) Only general classification chart of phylum chordata up to class.
  - (2) Draw only labelled diagram of alimentary canal of Amphioxus.

- 2 (a) Write the answers in short : **4**  
 (1) Description of Mesohippus (phylogeny of horse).  
 (2) Description of Eohippus (phylogeny of horse).  
 (3) Explain Isolation.  
 (4) Define genetic survival of fittest.
- (b) Write answers in short : **2**  
 (1) Significance of Lamarckism.  
 (2) Characters of multiple alleles.
- (c) Write answers in short : **3**  
 (1) Explain Darwinism, Natural selection and origin of species.  
 (2) Describe Rh factor and Erythroblastosis fetalis.
- (d) Write answers in short : **5**  
 (1) Explain 'C' genes in Rabbit coat colour.  
 (2) Explain ABO blood groups in human.
- 3 (a) Write the answers in short : **4**  
 (1) Write functions of Thrombocyte.  
 (2) The lifespan of R.B.C. is of \_\_\_\_\_ days.  
 (3) Draw only diagram of Sperm.  
 (4) Give any two example of Carbohydrase enzyme.
- (b) Write answers in short : **2**  
 (1) Growth phase of Oogenesis.  
 (2) Digestion of Lipid in alimentary canal.
- (c) Write answers in short : **3**  
 (1) Absorption of Carbohydrates in Intestine.  
 (2) Physiology of coagulation of Blood.
- (d) Write answers in short : **5**  
 (1) Describe human spermatogenesis.  
 (2) Types of W.B.C. (Leukocyte) of blood.
- 4 (a) Write the answers in short : **4**  
 (1) Give scientific name of Filarial worm.  
 (2) Symptoms of chronic Amoebiasis.  
 (3) Give name of disease caused by trypanosome.  
 (4) Give the name of animal which is responsible for causing Ascariasis.

- (b) Write answers in short : **2**  
(1) Write short notes on Fleas.  
(2) Write short notes on human Louse.
- (c) Write answers in short : **3**  
(1) Describe Life cycle of Bedbug.  
(2) Explain different apparatus used in poultry house.
- (d) Write answers in short : **5**  
(1) Explain deep litter system in poultry farming.  
(2) Note on fresh water aquarium.
- 5** (a) Write the answers in short : **4**  
(1) Give any two examples of short day breeders.  
(2) Write full form of L.H. hormone.  
(3) Define mono estrus animals.  
(4) Give the name of estrogen hormone secreting organ.
- (b) Write answers in short : **2**  
(1) Describe Nail in brief.  
(2) Describe Horns (any one)
- (c) Write answers in short : **3**  
(1) Describe Mucous gland.  
(2) Describe Estrus cycle.
- (d) Write answers in short : **5**  
(1) Describe origin and Evolution of heart in vertebrates.  
(2) Note on Menstrual cycle.
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