



DQ-003-2016022

Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

April – 2022

Zoology : Z-602

*(Cardiovascular System, Respiration and Muscular System,
Endocrinology and Reproduction, Immunology and Sense
organ and Histology)*

(New Course)

Faculty Code : 003

Subject Code : 2016022

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Illustrate your answer with neat and labeled diagram.
(2) Figures to right side indicate full marks of question

- 1 (A) Give answer of following question : 4
- (1) Give position pace maker of heart.
 - (2) Name the layers of heart.
 - (3) Define cardiac cycle
 - (4) In the presence of _____ prothrombin is converted in to active thrombin.
- (B) Write any **one** out of two : 2
- (1) Describe Howell's theory of blood clotting
 - (2) Draw internal structure of heart.
- (C) Write any **one** out of two : 3
- (1) Give description of Conduction and regulation of heart beat
 - (2) Write a note on blood pressure.

- (D) Write any **one** out of two : 5
- (1) Write a brief note on origin of heart
 - (2) Give description of E.G.C.
- 2 (A) Give answer of following question : 4
- (1) Define respiratory pigment
 - (2) What is partial pressure?
 - (3) Name the proteins which are present in Myofibrils.
 - (4) Write a name of responsible factor for O_2 is transported in blood.
- (B) Write any **one** out of two : 2
- (1) Write a short note on haemocynin
 - (2) Write function of muscular tissue
- (C) Write any **one** out of two : 3
- (1) Write note on factors effecting rate of systemic and pulmonary gas exchange.
 - (2) Write a note on heaemoglobin
- (D) Write any **one** out of two : 5
- (1) Explain transport of gases
 - (2) Explain the sliding filament theory.
- 3 (A) Give answer of following question : 4
- (1) Define preovulatory phase.
 - (2) Stress hormone release from _____ gland.
 - (3) What is the role of estrogen in ovulation?
 - (4) Write a function of Insulin hormone.
- (B) Write any **one** out of two : 2
- (1) Write a note on classification of hormone.
 - (2) Write a note on Thyroid hormone.

- (C) Write any **one** out of two : **3**
- (1) Write a note on ovarian hormone.
 - (2) Define Monoestrous, Dioestrous and Polyoestruos.
- (D) Write any **one** out of two : **5**
- (1) Write a short note on hormones of pituitary gland
 - (2) Describe Menstrual cycle.
- 4 (A) Give answer of following question : **4**
- (1) What is Interferons?
 - (2) Write the function of middle and internal Ear.
 - (3) Write a function of T cells and B Cells.
 - (4) Define Epitopes.
- (B) Write any **one** out of two : **2**
- (1) Write a note on first line defense.
 - (2) Give any two actions of Antibody with Antigen
- (C) Write any **one** out of two : **3**
- (1) Make a note on Gustatory receptor.
 - (2) Structure and function of IgM and IgA type of antibody
- (D) Write any **one** out of two : **5**
- (1) Explain in detailed structure of Photo receptor.
 - (2) Describe Adaptive immunity
- 5 (A) Give answer of following question : **4**
- (1) Define Histology.
 - (2) Give the function of interstitial cells.
 - (3) Write a use of D.P.X.
 - (4) _____ is the major mineralocorticoid.

- (B) Write any **one** out of two : **2**
- (1) Give preparation of any two compound fixative
 - (2) Brief note on Dehydration process.
- (C) Write any **one** out of two : **3**
- (1) Write the effect of Glucocorticoid.
 - (2) Describe any three stains.
- (D) Write any **one** out of two : **5**
- (1) Describe Histological structure of ovary.
 - (2) Describe Double staining Techniques.
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