



BBG-003-1016022

Seat No. _____

B. Sc. (Sem. VI) Examination

July - 2021

**Z-602 : Cardiovascular System,
Respiration and Muscular System, Endocrinology
and Reproduction and Histology**

(New Course)

Faculty Code : 003

Subject Code : 1016022

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

[Total Marks : 70

Instructions : (1) Draw neat and labeled diagram wherever necessary.
(2) Numbers to the right side indicate full marks of the questions.

- 1 (A) Answer the following questions: 4
(1) What is serum?
(2) Write the size and weight of the heart
(3) What are autorhythmic fibers?
(4) What is relaxation period in cardiac cycle?
(B) Answer in Brief: 2
(1) Pericardium
(C) Answer in Detail: 3
(1) Conduction system of the heart
(D) Write a note on: 5
(1) The Extrinsic Pathway and The Intrinsic Pathway
- 2 (A) Answer the following questions: 4
(1) What is thrombosis?
(2) What is mediastinum?
(3) Describe conduction system.
(4) Which repolarization causes ventricular diastole?

- (B) Answer in Brief: 2
 (1) Describe Systolic and diastolic blood pressure.
- (C) Answer in Detail: 3
 (1) The Common Pathway of Blood Clotting
- (D) Write a note on: 5
 (1) Electrocardiogram
- 3 (A) Answer the following questions: 4
 (1) Name the three layers of connective tissue that protect skeletal muscle.
 (2) State the Dalton's law
 (3) How many percentage of blood O₂ is bound to hemoglobin in RBC?
 (4) In which animal group Haemocyanin found?
- (B) Answer in Brief: 2
 (1) Internal respiration
- (C) Answer in Detail: 3
 (1) The Contraction Cycle
- (D) Write a note on: 5
 (1) Carbon Dioxide Transport
- 4 (A) Answer the following questions: 4
 (1) The neurons that stimulate skeletal muscle to contract are neurons
 (2) State the Henry's law
 (3) Note down the factors affecting Hemoglobin's Affinity for oxygen other than PO₂.
 (4) In which animal group Chlorocruorin and Haemerythrin found?
- (B) Answer in Brief: 2
 (1) External respiration
- (C) Answer in Detail: 3
 (1) Haemoglobin as a respiratory pigment
- (D) Write a note on: 5
 (1) The Neuromuscular Junction
- 5 (A) Answer the following questions: 4
 (1) Give Reason - "Pituitary gland called the "masters" of endocrine gland?
 (2) Name the hormones synthesize and secrete by thyroid gland.

- (3) The endocrine part of Pancreas is called
- (4) Explain "Proestrus" period of estrous cycle.
- (B) Answer in Brief: 2
- (1) Hormones of the posterior lobe of the pituitary gland
- (C) Answer in Detail: 3
- (1) Lipid soluble Hormones and Water Soluble Hormones
- (D) Write a note on: 5
- (1) Menstrual Cycle
- 6** (A) Answer the following questions: 4
- (1) Give location of thyroid gland.
- (2) Adrenal Medulla secretes And Hormones.
- (3) Define "Seasonally Monoestrous".
- (4) Define "Polyestrous"
- (B) Answer in Brief: 2
- (1) Explain "Estrus" period of estrous cycle.
- (C) Answer in Detail: 3
- (1) Hormones of anterior pituitary gland
- (D) Write a note on: 5
- (1) Parathyroid Gland
- 7** (A) Answer the following questions: 4
- (1) Define "Immunity".
- (2) Describe "Skin" as innate immunity.
- (3) Give the definition of "Antigen".
- (4) T cells formed in the and migrate to the to mature.
- (B) Answer in Brief: 2
- (1) Write the function of Ig G and Ig A
- (C) Answer in Detail: 3
- (1) B Cells
- (D) Write a note on: 5
- (1) Photo receptor

- 8 (A) Answer the following questions: 4
- (1) What is susceptibility ?
 - (2) Name the different Cellular Barriers present inside the body.
 - (3) What is Phagocytes?
 - (4) Define "Immunoglobulin" (Ig)
- (B) Answer in Brief: 2
- (1) Cytokine Barriers
- (C) Answer in Detail: 3
- (1) Physiological Barriers
- (D) Write a note on: 5
- (1) Phono receptor
- 9 (A) Answer the following questions: 4
- (1) Give Definition of Histology.
 - (2) Write the Function of Sertoli cells.
 - (3) Write the full form of DPX.
 - (4) What is ovulation?
- (B) Answer in Brief: 2
- (1) single staining
- (C) Answer in Detail: 3
- (1) histology of Ovary
- (D) Write a note on: 5
- (1) histology of adrenal gland
- 10 (A) Answer the following questions: 4
- (1) Note down three simple fixatives.
 - (2) Write the diameter of testicle?
 - (3) Define histological stain.
 - (4) Function of Glucocorticoid.
- (B) Answer in Brief: 2
- (1) fixation
- (C) Answer in Detail: 3
- (1) Write note on any three stain
- (D) Write a note on: 5
- (1) Double staining technique
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