

B.Sc. Semester - 6 (CBCS) Examination**March/April -2019****CARDIO SYS, RESP AND MUS SYS AND REPROD. IMMUNO. AND HISTO(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Que. 1 A) Attempt any one of the following (07)

1. Describe structure of heart and cardiac cycle.
2. Describe in detail physiology of blood clotting.

Que. 1 B) Attempt any one of the following (04)

1. Write a short note on blood pressure.
2. Write a short note on E.C.G.

Que. 1 C) Attempt any three of the following (03)

1. Which of the four heart chambers has the thickest muscular wall?
2. The life span of thrombocytes is _____ days.
3. What is cardiac output?
4. The first heart sound is produced when _____ and _____ valves close quickly.
5. Give the names of clotting factor – I and IV.

Que. 2 A) Attempt any one of the following (07)

1. Describe in detail transport of oxygen and carbon dioxide.
2. Structure of skeleton muscle and physiology of muscle contraction.

Que. 2 B) Attempt any one of the following (04)

1. Write a short note on respiratory pigments.
2. Write a short note on exchange of gases.

Que. 2 C) Attempt any three of the following (03)

1. Give the name of iron containing respiratory pigment except haemoglobin.
2. Insufficiency of O₂ is called _____?
3. Write the equation for the chemical reaction that occurs for transport of CO₂ as carbonate ions in blood.
4. Define Respiratory Quotient.
5. One molecule of haemoglobin carries how many molecules of O₂?

Que. 3 A) Attempt any one of the following (07)

1. Describe in detail primate female sexual cycle.
2. Function and disorder of thyroid and parathyroid glands hormones.

Que. 3 B) Attempt any one of the following (04)

1. Write a short note on oestrus cycle.
2. Write a note on hormones of pituitary gland.

Que. 3 C) Attempt any three of the following (03)

1. Give two examples of hormones which are antagonistic in nature.
2. Give the examples of polyoestrus animal.
3. Make a list of peptide hormone.
4. Which is hormone produced from kidney?
5. In which animal (group) anestrus phase is long lasting?

Que. 4 A) Attempt any one of the following (07)

1. Describe structure and function of antibody.
2. Photoreceptors.

Que. 4 B) Attempt any one of the following (04)

1. Describe second line defence of immune system.
2. Gustato receptor.

Que. 4 C) Attempt any three of the following (03)

1. Give the name of largest antibody.
2. Make a list of first line defence of immune system.
3. Eustachian tube is present between _____ and _____.
4. Define: Hyper Sensitivity.
5. Write any one difference between rod cell and cone cell.

Que. 5 A) Attempt any one of the following (07)

1. Describe technique for making permanent histological slide.
2. Give histological structure and hormones of adrenal gland.

Que. 5 B) Attempt any one of the following (04)

1. Write a short note on Haematoxyline and Eosin.
2. Describe properties of fixative and formalin as fixative.

Que. 5 C) Attempt any three of the following (03)

1. Draw labelled diagram of testis.
2. Which stain is used for staining giant chromosomes?
3. How many microns are set for tissue cutting in rotary microtomes?
4. In which histological structure we found Tunica albuginea, cortex and medulla?
5. What is the ideal melting temperature range of wax to be used in histology?
