

B.Sc. Semester - 6 (CBCS) Examination
Oct/Nov -2020

CARDIO SYS, RESP AND MUS SYS AND REPROD. IMMUNO. AND HISTO (CORE)

Time: 2:00 Hours

Marks: 56

Instructions:

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any four of the following questions.
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Que. 1 A) Attempt any one of the following (07)

1. Describe regulation of heart beat.
2. Describe in detail physiology of blood clotting.

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

1. Write a note on structure of heart.
2. Write a short note on E.C.G.

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

1. What is Cardiac Output?
2. How long does a cardiac cycle last?
3. What is name of Factor – X?
4. Which instrument is used to measure blood pressure?
5. What is role of Factor XIII?

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

1. Describe in detail exchange of oxygen and carbon dioxide at respiratory surface and cellular surface.
2. Describe fine structure of skeleton muscle and explain physiology of muscle contraction.

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

1. Write a short note on Haemoglobin and Chlorocruorin.
2. Write a note of transport of O₂ in blood.

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

1. Structural and functional unit of muscle is _____.
2. What are the characteristics of a muscle tissue?
3. In which group of animals haemocyanin is found?
4. One molecule of haemoglobin carries how many molecules of O₂?
5. Define aerobic and anaerobic respiration.

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

1. Describe menstrual cycle.
2. Describe structure of pituitary gland and its hormones.

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

1. Write a short note on oestrus cycle.
2. Write a note adrenal gland and its hormones.

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

1. Give examples of monoestrous animals?
2. In non primate mammals, copulation takes place in _____ phase of sexual cycle of female.
3. Which hormones are produced by corpus luteum.
4. Who is known as Father of Endocrinology?
5. In menstrual cycle, LH surge triggers _____.

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

1. Give a detailed structure of immunoglobulin with types and function.
2. Gustato receptors.

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

1. Describe innate immunity.
2. Photo receptor.

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

1. Which antibody is known as secretory antibody?
2. What is Hapten?
3. Which cells are associated with identification of colours in bright light?
4. Which tastes can be distinguished by taste buds in tongue?
5. Define passive immunity.

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

1. Explain all the steps involving in making permanent slides.
2. Describe histological structure of testis with diagram and discuss its hormones.

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

1. Explain the role of fixative in histological techniques and give names of commonly used fixatives.
2. Describe usages: Toluidine blue and Methyl blue.

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

1. Give full form of D.P.X.
2. Which stain is used as nuclear stain?
3. Corpus albinism is found in _____?
4. Give location of sustentacular cell.
5. Which treatment is given to a slide when it is under stained with haematoxylin?
