



**HAE-003-001642**

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

**Third Year B. Sc. (Sem. VI) (CBCS) Examination**

**June / July - 2017**

**Zoology : Z - 602**

*(Physiology, Histology & Micro Techniques) (New Course)*

**Faculty Code : 003**

**Subject Code : 001642**

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

[Total Marks : 70

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

**1** Give the answer of following questions : **20**

- (1) \_\_\_\_\_ is the term indication a slow heart rate or pulses rate. (under 50 / minute)
- (2) Write any three causes of hypotension.
- (3) Complete the sequence.  
Active heparin + \_\_\_\_\_ + \_\_\_\_\_ → Inactive heparin.
- (4) What is respiratory quotient ?
- (5) Accumulation of which acid in muscles cause fatigue ?
- (6) Which endocrine gland is associated with salt, sugar and sex ?
- (7) In menstrual cycle which days are belongs to proliferative phase.
- (8) Give examples of monoestrus, diestrus and poly estrus animal.
- (9) Which antibody found in colostrum and mother's milk ?
- (10) Give the only name of papillae found upper surface of tongue.
- (11) In retina \_\_\_\_\_ cells are specialized for reception in dim light.
- (12) Which instrument is used for sectioning wax embedded tissue in histology ?

- (13) Give only name of ear ossicles of middle ear.
- (14) Give the composition of Bouin's fluid (aqueous).
- (15) Which stain is generally used for staining nucleus in double staining techniques ?
- (16) Give the name of surrounding layers those found in structure of testis.
- (17) Which hormones produced by chromaffin cells of adrenal gland ?
- (18) What is time duration of ventricular systole ?
- (19) Give the full form of DPX.
- (20) Give two examples of hormones those are antagonistic in nature.

- 2** (a) Write any three out of six : **6**
- (1) Myxoedema and cretinism thyroid disorder.
  - (2) Copper contain respiratory pigment.
  - (3) Chemical regulation of heart beat.
  - (4) Proestrus and Anestrus phase.
  - (5) Haemotoxylene.
  - (6) Negative feed back control of hormones.
- (b) Write any three out of six : **9**
- (1) Histological structure of testis.
  - (2) Cardiac cycle.
  - (3) Hormones of pancreas and its disorder.
  - (4) Extrinsic pathway of blood clotting.
  - (5) Double staining technique.
  - (6) Blood pressure and hypertension.
- (c) Write any two out of five : **10**
- (1) Explain muscle contraction theory and cori cycle.
  - (2) Structure of heart and origin of heart beat.
  - (3) Exchange of O<sub>2</sub> and CO<sub>2</sub>.
  - (4) Sexual cycle in human female.
  - (5) Describe in detail photoreceptor.
- 3** (a) Write any three out of six : **6**
- (1) Allergy
  - (2) Eosin
  - (3) Male sex hormones
  - (4) Haemoglobin as respiratory pigment
  - (5) Function of fixative and write about any one fixative.
  - (6) Heat period in estrus cycle.

- (b) Write any three out of six : 9
- (1) Structure of adrenal gland.
  - (2) Best and Taylor's theory.
  - (3) Electrocardiogram.
  - (4) Role of thyroid hormone in physiology.
  - (5) Gustato receptor
  - (6) Inborn immunity.
- (c) Write any two out of five : 10
- (1) Hormones and disorder of band master gland or master gland.
  - (2) Describe - phonoreceptor.
  - (3) Describe in detail process of fixation, embedding and sectioning of animal tissue.
  - (4) Structure of ovary and its hormones in detail.
  - (5) What are immunoglobins ? Give structure, types and function of its.
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