



**DA-003-001642**

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

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

**April / May – 2015**

**Zoology : Z - 602**

**(Physiology, Histology & Microtechniques)**

**Faculty Code : 003**

**Subject Code : 001642**

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

[Total Marks : 70

- Instructions :** (1) Draw neat and labelled diagrams wherever necessary.
- (2) Figures to the right side indicate full marks for the question.

**1 M.C.Q. : 20**

- (1) Androgens are .....
- (A) Female sex hormones
  - (B) Male sex hormones
  - (C) Corpus Luteum hormones
  - (D) ACTH
- (2) Which valve is present in between right auricle and right ventricle ?
- (A) Bicupsid valve
  - (B) Tricupsid valve
  - (C) Semilunar valve
  - (D) Eustachian valve

- (3) An inorganic substance, essential for blood clotting is
- (A)  $Mg^{++}$                       (B)  $Ca^{++}$   
(C)  $Fe^{++}$                       (D)  $Na^{++}$
- (4) Pulse beat is measured from
- (A) nerves  
(B) veins  
(C) arteries  
(D) capillaries
- (5) Tachycardia is
- (A) increase in heart beat  
(B) decrease in heart beat  
(C) normal heart beat  
(D) No heart beat
- (6) Antibodies are produced by :
- (A) T-cell                      (B) B-cell  
(C) Monocytes              (D) Phagocytes
- (7) ACTH is secreted by :
- (A) Adrenal  
(B) Hypothalamus  
(C) Thyroid  
(D) Pituitary

- (8) Which phase is also known as heat period ?
- (A) Proestrus                      (B) Metaestrus
- (C) Estrus                          (D) Anestrus
- (9) Which is not used as fixative in histology ?
- (A) Eosin
- (B) Formaldehyde
- (C) Bouin's fluid
- (D) Alcohol
- (10) Which Hormone is responsible for ovulation ?
- (A) FSH                              (B) LH
- (C) ACTH                            (D) Estrogen
- (11) Temperature range of wax of melting ideal in histology is :
- (A) 56 - 58°C
- (B) 72 - 76°C
- (C) 56 - 58°F
- (D) 72 - 76°F
- (12) Blind spot is present in :
- (A) Eye                                (B) Ear
- (C) Nose                               (D) Tongue

(13) Which of the following immunoglobulin can cross placenta during pregnancy ?

- (A) IgB
- (B) IgA
- (C) IgD
- (D) IgG

(14) Chemically immunoglobulin is :

- (A) Glycoprotein
- (B) Estrogen
- (C) Metalloprotein
- (D) L.H.

(15) Sarcomere is :

- (A) Part between two H-line
- (B) Distance between Z-Z line
- (C) A part between A-A line
- (D) None

(16) The islets of Langerhans are found in :

- (A) Liver
- (B) Pancreas
- (C) Stomach
- (D) Intestine

(17) Alveoli are present in :

- (A) Spleen
- (B) Lungs
- (C) Kidney
- (D) Intestine

(18) Full name of DPX :

- (A) Dibutylphalate plasticizer xylene
- (B) Diethyl phosphate xylene
- (C) Differric xylene
- (D) None

(19) Which hormone is secreted by adrenal gland ?

- (A) Glucagon
- (B) Insulin
- (C) Adrenaline and nor-adrenaline
- (D) LH

(20) Estrogen is present in :

- (A) Male
- (B) Female
- (C) Both
- (D) None

**2 (a) Write any three out of six : 6**

- (1) Explain antigen
- (2) Bouins fluid
- (3) Heat period
- (4) Functions of Adrenal gland
- (5) ECG
- (6) Blood co-agulation.

**(b) Write any three out of six : 9**

- (1) Phonoreceptor
- (2) Double staining technique
- (3) Describe various types of stains
- (4) Describe the copper and manganese containing respiratory pigments
- (5) Feedback control of tropic hormones
- (6) Female sex hormones.

(c) Write any two out of **five** : **10**

- (1) Cardiac cycle
- (2) Transport of CO<sub>2</sub>
- (3) Menstrual cycle
- (4) Sliding filament theory
- (5) Photoreceptor.

**3** (a) Write any three out of **six** : **6**

- (1) Hormones and functions of parathyroid gland
- (2) Metaestrus
- (3) Haematoxylene
- (4) Draw only - T. S. of Mammalian testis and label
- (5) Regulation of heart beat
- (6) Various hormones of pituitary gland.

(b) Write any three out of **six** : **9**

- (1) Allergy
- (2) Haemoglobin as a respiratory pigment
- (3) Give a brief process of making wax block
- (4) Alcohol and xylene : Importance in Histological slide preparation.
- (5) Best and Taylor's theory
- (6) Inborn Immunity / Innate immunity.

(c) Write any two out of **five** :

**10**

- (1) Physiology of respiration
- (2) Estrus cycle
- (3) Process of making histological slides
- (4) Immunoglobulins
- (5) Describe briefly the functions and properties of muscles.

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