



AAH-003-001642

Seat No. _____

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

April/May – 2016

Z-602 : Zoology

(Physiology, Histology, Microtechnique) (New Course)

Faculty Code : 003

Subject Code : 001642

Time : **2.30** Hours]

[Total Marks : **70**

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

1 Give the answer of followins MCQs : **20**

(1) Which of the following is largest immunoglobins ?

(A) $I_g G$

(B) $I_g M$

(C) $I_g A$

(D) $I_g E$

(2) During muscle contraction C_a^{++} ions bind with

(A) Troponin

(B) Tropomyosin

(C) G. actin

(D) Myosin

- (3) Relaxin hormones is released from :
- (A) Pitutary (B) Ovary
(C) Testis (D) Adrenal
- (4) Right atrium receives blood from
- (A) Pulmonary aorta
(B) Pulmonary veins
(C) Inferior vena cava
(D) Superior and inferior Vena Cava
- (5) Movement of CO_2 and O_2 across the alveoli and capillaries take place by
- (A) Imbibition (B) Active transport
(C) Diffusion (D) Carrier transport
- (6) Which is used as counter stain with eosin in histology ?
- (A) Methyle blue (B) Haemotoxyline
(C) Aceto carmine (D) Toludine blue
- (7) Which is not used as a fixative agent in histology ?
- (A) Bouin's fluid (B) Formeline
(C) Carnoy's fluid (D) Xylene

- (8) Which phase is sexually receptive phase in non-primate sexual cycle ?
- (A) Ana estrus (B) Estrus
- (C) Diestrus (D) Polyestrus
- (9) Rods and cones of eyes are modified.
- (A) Multipolar neuron (B) Unipolar neuron
- (C) Bipolar neuron (D) None of these
- (10) Which is true sequence ?
- (A) Fixation, embedding in wax, tissue collection, sectioning
- (B) Sectioning, fixation, embedding in wax, tissue collection
- (C) Tissue collection, embedding in wax, sectioning, fixation
- (D) Tissue collection, fixation, embedding in wax, sectioning
- (11) LH surge occurs during which phase of the menstrual cycle?
- (A) At the middle of the cycle
- (B) Menstrual phase
- (C) After luteal period
- (D) At the beginning of proliferative phase
- (12) The nutritive cells are found in seminiferous tubules are
- (A) Leydig cells (B) Atertic follicular cells
- (C) Sertoli cells (D) Chromaffin cells

(13) Which of the following disease is not related to thyroid gland ?

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|----------------|---------------|
| (A) Acromegaly | (B) Myxoedema |
| (C) Cretinism | (D) Goitre |

(14) In the extrinsic clotting path way the active factor VII activate factors.

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|--------------|----------------|
| (A) X and XI | (B) IX and XI |
| (C) IX and X | (D) XI and XII |

(15) Corpus albicans is found in T.S. of

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|-----------------|-------------|
| (A) Testis | (B) Ovary |
| (C) Renal gland | (D) Muscles |

(16) Systole causes

- (A) Entry of blood in to lungs
- (B) Entry of blood in to heart
- (C) Exit of blood from lung
- (D) Exit of blood from ventricles

(17) Taste buds on the posterior side of tongue in human recognize

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|------------------|-----------------|
| (A) Bitter taste | (B) Sweet taste |
| (C) Sour taste | (D) Salt taste |

(18) The balancing organ of ear is

- (A) Lagena and sacculus
- (B) Semicircular canal and utriculus
- (C) Semicircular canal and otolith
- (D) Otolith and lagena

(19) Colour on oxygenation of haemocyanin is

- (A) Orang red
- (B) Blue
- (C) Reddish
- (D) Purple red

(20) Inflammatory response, in allergy, is caused by the release of

- (A) Histamines
- (B) Interferon
- (C) Antibodies
- (D) Prothrombin

2 (a) Write any three out of six :

06

- (1) Write short note on Haemotoxyline.
- (2) S.A. node and A.V. node location and function.
- (3) Iron containg respiratory pigment.
- (4) Explain fluid and spiro's theory of blood clotting.
- (5) Hormones of pancreas.
- (6) Single staining techniques.

(b) Write any three out of six : **09**

- (1) Female gonadal hormones.
- (2) Phonoreceptor.
- (3) Regulation of heart-beat.
- (4) Disorder of thyroid hormones.
- (5) Electro cardiogram.
- (6) Histological structure of testis.

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

- (1) Immunoglobins - their types and function in detail.
- (2) Structure of heart.
- (3) Mechanism of blood clotting.
- (4) Pitutary gland's hormones and its disorders.
- (5) Photoreceptors.

3 (a) Write any three out of six : **06**

- (1) Describe - Cori cycle.
- (2) Write a short note on blood-pressure.
- (3) Male gonadal hormones and its function.
- (4) Bouin's fluid as fixative.
- (5) Eosin.
- (6) allergy.

(b) Write any three out of six : **09**

- (1) Double staining technique.
- (2) Cardiac cycle.
- (3) Histological structure of ovary.
- (4) Describe - Test bud.
- (5) Estrus cycle.
- (6) Explain Howell's theory of blood co-agulation.

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

- (1) Describe in brief - menstrual cycle.
 - (2) Process of making histological slides.
 - (3) Physical and chemical events during muscle sliding filament theory.
 - (4) Histological structure of adrenal gland and its hormonal function.
 - (5) Transport of gases during respiration.
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