ELEMENTARY ANATOMY AND MICROTECHNIQUES  HSSC-1

SECTION – A (Marks 10)

Time allowed: 10 Minutes

NOTE:- Section-A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 10 minutes and handed over to the Centre Superintendant. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

(i) The information about Protein synthesis in a cell is with ________.
A. Ribosomes
B. Nucleus
C. Nucleolus
D. Rough endoplasmic reticulum

(ii) If height of a cell is greater than its width, the cell type is ________.
A. Squamous
B. Cuboidal
C. Columnar
D. Fusiform

(iii) Which of the following is the most comprehensive statement about Respiration?
A. Exchange of gases between atmosphere and lungs
B. Exchange of gases between blood and lungs
C. Exchange of gases between blood and tissues
D. Exchange of gases between atmosphere and tissues

(iv) Which of the following is an example of bicuspid valve?
A. Pulmonary valve
B. Aortic valve
C. Right AV valve
D. Left AV valve

(v) Sertoli cells secrete a hormone ________.
A. Testosterone
B. Estrogens
C. Aldosterone
D. None of these

(vi) ACTH is a hormone of pituitary and targets ________.
A. Pancreas
B. Adrenal Cortex
C. Adrenal medulla
D. Thyroid

(vii) Which of the following is the most commonly used clearing agent?
A. Xylene
B. Chloroform
C. Benzene
D. Clove Oil

(viii) Formalin is a solution of Formaldehyde ________.
A. 5 %
B. 10 %
C. 20 %
D. 40%

(ix) Most commonly used impregnating medium is ________.
A. LVN
B. Celloidin
C. Paraffin wax
D. Carbowax

(x) The knife is horizontally placed in ________.
A. Rotary Microtome
B. Cryostat
C. Base Sledge Microtome
D. Rocking Microtome

For Examiner's use only:

Total Marks: 10

Marks Obtained:
Time allowed: 2:20 Hours  
Total Marks Sections B and C: 40

NOTE:- Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

SECTION – B (Marks 26)

Q. 2 Attempt any THIRTEEN parts. The answer to each part should not exceed 2 to 5 lines. (13 x 2 = 26)

(i) What are anatomical planes of reference?
(ii) Briefly describe digestion in stomach.
(iii) Name blood vessels directly associated with heart.
(iv) Name different anatomical parts of brain.
(v) Define the following:
   a. Endometrium  
   b. Endothelium  
   c. Endocardium
(vi) Name the parts of male reproductive system.
(vii) Describe the Skeletal Muscle CELL briefly.
(viii) Why is the Pituitary gland called master gland?
(ix) How are the secretions different from excretions?
(x) Give the importance of microtechnique.
(x) What do you mean by Postmortem changes?
(xii) Name main classes of fixatives.
(xiii) Define Clearing and Dealcoholization.
(xiv) What do you mean by blueing in H/E staining?
(xv) What do you mean by trimming and Fine sectioning?
(xvi) Name tests for confirmation of decalcification.
(xvii) Give some features of stains.

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks. (2 x 7 = 14)

Q.3 a. What is hepatic portal system?
   b. Describe the different functions performed by liver.
Q.4 Describe three types of muscle in detail.
Q.5 You have received a Bony Biopsy. How will you proceed to make a final stained slide from it?

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