



Roll No. _____

Answer Sheet No. 71

Sig. of Candidate. _____

Sig. of Invigilator. _____

ELEMENTARY ANATOMY AND MICROTECHNIQUES HSSC-I

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 Superintendent. 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) Which one of the following is the opposite of the term "Parietal"?
- A. Palmar
B. Visceral
C. Dorsal
D. Ventral
- (ii) In which phase of the Cell Cycle new DNA is synthesized?
- A. G₁
B. G₂
C. S phase
D. Mitosis
- (iii) Which type of epithelium is present in the lining of Pulmonary Alveoli:
- A. Simple Squamous
B. Simple Cuboidal
C. Simple Columnar
D. Stratified Squamous
- (iv) Which one of the following organs receives the "Portal Vein"?
- A. Liver
B. Pancreas
C. Spleen
D. Kidney
- (v) Which endocrine gland is attached at the top of kidney?
- A. Thyroid
B. Pituitary
C. Adrenal
D. Pancreas
- (vi) What strength of formic acid is used for decalcification of a bony biopsy?
- A. 5%
B. 10%
C. 15%
D. 20%
- (vii) Which reagent is used for differentiation of tissue sections in Haematoxylin-Eosin (H/E) staining?
- A. 1% Acid water
B. 1% Alkaline water
C. 1% Lithium carbonate
D. 1% Ammonia water
- (viii) Which one of the following is the most commonly used mounting medium?
- A. Canada balsam
B. Glycerine Jelly
C. DPX
D. Resins
- (ix) Which one of the following is used for taking "Frozen Sections"?
- A. Rotary Microtome
B. Cryostat
C. Centrifuge
D. Tissue Processor
- (x) Which one of the following is an example of clearing agent?
- A. Ethanol
B. Acetone
C. Formaldehyde
D. Xylene

For Examiner's use only:

Total Marks:

10

Marks Obtained:



ELEMENTARY ANATOMY AND MICROTECHNIQUES HSSC-I

72

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

- (i) Write down any four functions of liver.
- (ii) Name four basic tissues of the body.
- (iii) Briefly mention anatomy of right lung.
- (iv) What is HILUM (HILUS) of a kidney?
- (v) Give any four microscopic features of "Thyroid Gland".
- (vi) What is "Blueing" step in H/E staining?
- (vii) What do you mean by "Differentiation" of tissue sections?
- (viii) Write down working principle of Base Sledge Microtome.
- (ix) Draw a labelled diagram of a "Multipolar Neuron".
- (x) Name "Atypical Cervical Vertebrae".
- (xi) What are "Chordae Tendinae"?
- (xii) Give merits of Nitric Acid as a decalcifying agent.
- (xiii) What is a cartilage?
- (xiv) Give any four merits of formaldehyde fixative.
- (xv) Name stages of Tissue processing.
- (xvi) Why pancreas is called a dual gland?
- (xvii) What are Leydig cells of testis?

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks.

(2 x 7 = 14)

- Q.3** Name different types of microtomes. Give working principle and merits of rotary microtome.
- Q.4** Write down anatomy and anatomical position of pancreas. What role is played by this organ in digestion of food?
- Q.5** Write down the microscopic structure of testis. What do you know about the endocrine function of this organ?