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Answer Sheet No. 91

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) What is the number of bones in the “Ankle”?
- | | |
|------|-------|
| A. 5 | B. 7 |
| C. 8 | D. 10 |
- (ii) Which organelle of the Cell is involved in defence mechanisms of the Cell?
- | | |
|-----------------|--------------|
| A. Nucleus | B. Lysosomes |
| C. Mitochondria | D. Ribosomes |
- (iii) Fallopian Tubes are lined by what type of Epithelium?
- | | |
|--------------------|------------------------|
| A. Simple Columnar | B. Ciliated Columnar |
| C. Simple Squamous | D. Stratified Squamous |
- (iv) Which organ of the body receives the “Coronary Arteries”?
- | | |
|-----------|-----------|
| A. Liver | B. Spleen |
| C. Kidney | D. Heart |
- (v) Which type of tissue the Intervertebral disc is:
- | | |
|----------------------------|----------------------|
| A. Dense Connective Tissue | B. Elastic Cartilage |
| C. Hyaline Cartilage | D. Fibrocartilage |
- (vi) Which chemical fixative causes “Lysis” of RBCs?
- | | |
|------------------------|----------------------|
| A. Formaldehyde | B. Ethanol |
| C. Glacial Acetic Acid | D. Mercuric Chloride |
- (vii) Which one of the following is a “Clearing Agent” for “Tissue Processing”?
- | | |
|------------|-------------|
| A. Xylene | B. Ethanol |
| C. Acetone | D. Methanol |
- (viii) Which chemical is commonly used as a “Mordant” in Haematoxylin Stain?
- | | |
|-------------------|------------------------|
| A. Nitric Acid | B. Alum Salt |
| C. Mercuric Oxide | D. Haematoxylin Powder |
- (ix) Which method is recommended for “Histochemistry of Lipids”?
- | | |
|------------------------|-------------------------|
| A. Paraffin Wax Method | B. Celloidin Method |
| C. Frozen Sectioning | D. Freeze Drying Method |
- (x) Which one of the following is **NOT** “Eosinophilic”?
- | | |
|------------|-------------|
| A. RBC | B. Muscle |
| C. Nucleus | D. Collagen |

For Examiner’s use only:

Total Marks:

10

Marks Obtained:

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ELEMENTARY ANATOMY AND MICROTECHNIQUES HSSC-I

92

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) Why "Mitochondria" are called "Power House" of the Cell?
- (ii) Briefly mention "Haversian System" of bone.
- (iii) Write down any three functions of "Spleen".
- (iv) Write down Anatomy and Anatomical position of "Urinary Bladder".
- (v) What is "Aorta"? Give its anatomical parts.
- (vi) How will you functionally classify "Neurons", the unit of Nervous Tissue?
- (vii) Briefly describe "Endometrium", the lining of Uterus.
- (viii) Write down "Hormonal Control" of "Glucose Metabolism".
- (ix) How a Skeletal muscle fiber is different from a smooth muscle fiber?
- (x) Name any four basic items to set up Histopathology Lab.
- (xi) Differentiate between "Fixation" and "Preservation" of a tissue.
- (xii) What do you know about "Impregnation" of tissue in "Tissue Processing"?
- (xiii) Give any four faults encountered in tissue section cutting?
- (xiv) Write down the principle of Haematoxylin Eosin (H/E) Staining.
- (xv) How a bony biopsy processing is different from other biopsies?
- (xvi) Briefly describe "Mounting" of a stained tissue section.
- (xvii) Differentiate between "Dewaxing" and "Clearing", both carried out in Xylene.

SECTION – C (Marks 14)

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

(2 x 7 = 14)

Q.3 Define "Tissue Processing". Name its stages. Briefly describe the Clearing stage.

Q.4 Name parts of "Female Genital Tract" What types of epithelia are present in the part "Cervix".

Q.5 Write down Histological types of Endocrine Glands. Clarify your answer with examples.