



Version No.

ROLL NUMBER					

MEDICAL LABORATORY SCIENCE (Elementary & Anatomy and Micro techniques)HSSC-I SECTION – A (Marks 08)

Time allowed: 15 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencils.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر ناظم مرکز کے حوالے کریں۔ کاٹ کر موبایل لکھنے کی اجازت نہیں ہے۔
بنسل کا استعمال ممنوع ہے۔

Answer Sheet No. _____ **Candidate's Sign.** _____ **Invigilator's Sign.** _____

Candidate's Sign. _____ **Invigilator's Sign.** _____

Invigilator's Sign. _____

Fill the relevant bubble against each question:

S #	Question	A	B	C	D	A	B	C	D
1.	What is the main function of mordant in staining	To preserve the tissue	To increase the affinity of tissue for a stain	To dehydrate the tissue	To create mounting stain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	Which of the following is the most commonly used type of microtome?	Sled microtome	Freezing microtome	Rotary microtome	Sliding microtome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	Which of the following is the structural and functional unit of the human nervous system?	Brain	Axon	Neuron	Dentron	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	Which of the following cells in the pancreas make insulin?	Epithelial cells	Hepatic cells	Germ cells	Islet cells	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	Which of the following is the largest gland in human body?	kidneys	Thymus	liver	Pancreas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Sudan black is used for visualization of	proteins	carbohydrates	Amino acids	Lipids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	How much fixative should be used relative to the tissue volume?	Equal volume	Twice volume	At least 10-20 times volume	Half the volume	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	In a light microscope, what is the function of the condenser?	To magnify the image	To focus the light rays coming from the illuminator onto the specimen	To hold the slide in place	To adjust the light intensity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



MEDICAL LABORATORY SCIENCE (Elementary Anatomy & Micro Techniques)

Time allowed: 2:15 Hours

Total Marks Section B & C: 32

Note: Answer all parts from Section 'B' and all questions from Section 'C' on the provided Sheet.

Write your answers on the allotted /given spaces

SECTION – B (Marks 20)

Q. 2	Attempt the following questions.	(10 × 2 = 20)		
(i)	Enlist the names of fixatives routinely used in histo pathology Lab?	2	OR	What is the role of liver in digestion?
(ii)	Write down the principle of microtome?	2	OR	Write down the importance of fixatives?
(iii)	Define stains? Also write down the classification of stains?	2	OR	Enlist the parts of urinary system?
(iv)	What is H & E stain? Also write its principle?	2	OR	Define joints and ligaments?
(v)	Write down the general characteristics of an ideal fixative?	2	OR	What is the role of insulin and glucagon in human body?
(vi)	Write down the factors that effects the fixation of tissues?	2	OR	What do you know about fine needle aspiration technique?
(vii)	How decalcification of bone done?	2	OR	Write down the anatomy of heart?
(viii)	Differentiate between inhalation and exhalation?	2	OR	Enlist the types of microtome?
(ix)	What is the function of endocrine system?	2	OR	What is defecation?
(x)	Define mounting?	2	OR	Enlist the parts of large and small intestine?

SECTION – C (Marks 12)

Note: Attempt all questions. Marks of each question are given along with each question. (2 × 6 = 12)

Q. 3	Write a detailed note on the structure and function of nephrons along with diagram?	6	OR	Write down the steps of H & E staining?	6
Q. 4	Write a detailed note on the digestion of food in stomach?	6	OR	How different types of histo pathological samples are fixed?	6