



The Open University of Sri Lanka
Bachelor of Medical Laboratory Sciences (B.MLS)
MLU1249- Histological Techniques and Cytology
Semester 02- Academic year 2015/2016
No Book Test 02
Return your question paper with the answer sheet



Date: 19.05.2016

Duration – 1 1/2 hours

Time: 10.00 a.m. – 11.30 a.m.

Registration No

Please read the following instructions carefully before you answer the paper.
(100 marks)

Part A: Multiple Choice Questions (20 marks)

There are 10 multiple choice questions in this part, each question with four responses. Select the suitable response and encircle the correct response in the question paper itself.

Part B: True/False Questions (10 marks)

State whether the following statements are “True” or “False” by underlining the correct response given in the brackets in front of each statement.

Part C: Short Answer Questions (40 marks)

You are given two short answer questions. Each question contains four parts. Answer all the questions in given spaces.

Part D: Structured essay Question (30 marks)

There is one structured essay question. Answer the question in given papers.

Good Luck!

Part B – True/False Questions.

(10 marks)

Answer all the questions. State whether the following statements are “True” or “False” by underlining the correct response given in the brackets in front of each statement.

1. In a rotary microtome, the knife moves vertically to cut sections from tissue block fixed in the holder. (True/ False)
2. Thick and thin sections can be given in the microtomy due to the excessive paraffin wax in the tissue block. (True/ False)
3. In progressive staining with Alum Haematoxylin, the tissue section is first over stained with haematoxylin and then differentiated. (True/ False)
4. The rate of tissue processing is dependent upon agitation. (True/ False)
5. 95% ethyl alcohol is the most widely used fixative in cytopathology. (True/ False)
6. Microtomy is meant by processes of tissues sectioning and attaching to a surface for further microscopic examination. (True/ False)
7. 1-1.5% Eosin Y is the most commonly used acidic dye used in combination with the haematoxylin in the routine staining. (True/ False)
8. Neutral mucins are not reactive with Alcian Blue solution at pH 2.5. (True/ False)
9. In Methenamine-Silver technique, silver ions in the methenamine silver complex reduced to the visible metallic silver while oxidizing the carbohydrates to aldehydes in basement membrane. (True/ False)
10. Reticulin fibers can be demonstrated by metal impregnation staining techniques. (True/ False)

Part C – Short Answer Questions.

(40 marks)

Answer all the questions in given spaces.

1. Tissue processing is one of the most important steps in preparing a tissue section for microscopy.

1.1 What is meant by “dehydration” related to the tissue processing?

(04 marks)

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1.2 Name three (03) dehydrating fluids other than the ethanol. **(03 marks)**

- i.....
- ii.....
- iii.....

1.3. How does ethanol acts as a dehydrating agent. **(05 marks)**

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1.4. List four (04) important steps in maintenance of a tissue processor. **(08 marks)**

- i.....
- ii.....
- iii.....
- iv.....

2. Hematoxylin and eosin is the routinely used stain in Histology.

2.1. What are the cellular/ tissue components stained by haematoxylin and eosin? Give the color of each component mentioned above. **(06 marks)**

Component	Colour
i.	
ii.	
iii.	

2.1. What is meant by "Mordant" in a stain? **(03 marks)**

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2.2. List two (02) different chemicals that can be used as a mordant of Harris's haematoxylin? (04 marks)

- i.....
- ii.....

2.3. What is meant by regressive staining with haematoxylin? (07 marks)

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Part – D: Structured Essay Question. (30 marks)
Answer the question in given space.

1. Briefly outline the three basic types of pigments and minerals that can be found in a tissue section and giving examples.