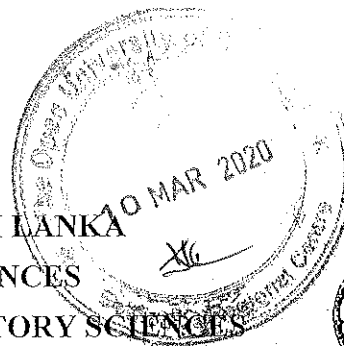
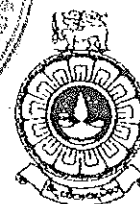


THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2019/2020 – SEMESTER I



00035



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU6355: IMMUNOHISTOCHEMISTRY
NO BOOK TEST 2

DURATION: 1 1/2 HOURS

DATE: 10th MARCH 2020

TIME: 9.00 AM – 10.30 AM

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of **09** pages with **10 Multiple Choice Questions (Part A)** and **04 Structured Essay Questions (Part B)** and **01 Essay Question (Part C)**.
- Write your Registration Number in the space provided.
- Answer **ALL** questions.
- **Multiple Choice Questions (Part A):** Indicate answers in the answer sheet provided by placing a cross (X) in **INK** in the relevant cage. (answers in pencil will **NOT** be marked)
- **Structured Essay Questions (Part B):** Write answers within the space provided.
- **Essay Question (Part C):** Write the answer on the provided papers.
- Do not remove any page/part of this question paper from the examination hall.
- Mobile phones and any other electronic equipment are **NOT** allowed. Leave them outside.

Name:

Address:

.....

.....

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Part A: Multiple Choice Questions (10 marks)

1. The three dimensional fit of the antibody to its specific antigen is called
 - a. Affinity
 - b. Specificity
 - c. Avidity
 - d. Sensitivity

2. Which of the following is most correct regarding avidin biotin technique?
 - a. Only the horseradish peroxidase can be used as an enzyme
 - b. One biotin molecule can attach to the single antibody
 - c. Methods rely on the marked affinity of avidin for the vitamin biotin
 - d. Endogenous biotin should be blocked after applying the primary antibody

3. What is the colour of the product when horseradish peroxidase is used with diaminobenzidine (DAB)?
 - a. Red
 - b. Blue black
 - c. Blue
 - d. Brown

4. An adhesive which leaves amino group on the surface of the glass slide is
 - a. egg albumin
 - b. poly-L-lysine
 - c. gelatin
 - d. Elmer's glue

5. During washing of the specimen, the antigen-antibody bond is partly dissociated due to
 - a. low salt concentration
 - b. low temperature
 - c. very low pH
 - d. excessive washing

6. How do you distinguish carcinoma from lymphoma, sarcoma and melanoma?
 - a. Cytokeratin gives positive in carcinoma
 - b. Vimentin gives positive in carcinoma
 - c. S 100 gives positive in carcinoma
 - d. LCA gives positive in carcinoma

7. The most suitable answer for reporting the percentage positivity is
 - a. Her 2
 - b. Ki 6
 - c. Epstein Bar Virus (Ebv)
 - d. CD 34

8. The marker which results in diffuse strong positive in B cell lymphoma is
 - a. CD 3
 - b. CD 20
 - c. CD 30
 - d. CD 15

9. The specificity of an antibody is due to
 - a. it's valency
 - b. the heavy chain
 - c. fragment crystallizable (FC) region of the heavy and light chain
 - d. variable portion of the heavy and light chain

10. The most appropriate cause for the artificial staining is
 - a. the presence of endogenous biotin
 - b. thick preparation
 - c. microbiological contamination
 - d. poorly fixed necrotic tissue

Part B: Structured Essay Questions (80 marks)

Q1

1.1 What are the “small round cell tumours” of children? (05 Marks)

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1.2 List **five (05)** examples for small round cell tumours? (10 Marks)

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

1.3 What are the antibodies used in the diagnosis of the small round cell tumours? (05 Marks)

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Total 20 marks

Q2

2.1 Illustrate peroxidase anti-peroxidase (PAP) immune complex method? (10 Marks)

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2.2 List two (02) advantages of PAP method? (06 Marks)

- i.
- ii.

2.3 Mention one (01) disadvantage of PAP method? (04 Marks)

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Total 20 marks

Q3

3.1 What do you mean by “background staining” in immunohistochemistry (IHC)? (05 Marks)

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3.2 List **five (05)** reasons which can cause background staining in tissue slides? (10 Marks)

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

3.3 What are the commonly used blocking buffers in IHC? (05 Marks)

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Total 20 marks

Q4

4.1 What are the factors affecting the staining quality in immunohistochemistry (IHC)? (08 Marks)

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4.2 Briefly describe how you would do the internal quality control in IHC? (08 marks)

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4.3 List four (04) reasons which can cause false negative results in IHC. (04 Marks)

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

Total 20 marks

Part C: Essay Question (10 marks)

1. How would you detect low levels of antigen in a tissue section? (10 Marks)

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BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS

MDU6355: IMMUNOHISTOCHEMISTRY

NO BOOK TEST 2

ANSWER SHEET FOR PART A

1.

a	b	c	d
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2.

a	b	c	d
---	---	---	---

3.

a	b	c	d
---	---	---	---

4.

a	b	c	d
---	---	---	---

5.

a	b	c	d
---	---	---	---

6.

a	b	c	d
---	---	---	---

7.

a	b	c	d
---	---	---	---

8.

a	b	c	d
---	---	---	---

9.

a	b	c	d
---	---	---	---

10.

a	b	c	d
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