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THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2020/2021 – SEMESTER I



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU6355 – IMMUNOHISTOCHEMISTRY – LEVEL 6
FINAL EXAMINATION

DURATION: 03 HOURS

DATE: 16TH MARCH 2022

TIME: 09.30AM – 12.30PM

INDEX NO:



PART B – Structured Essay Questions (40 Marks)

1. Adaptive immunity is also referred to as acquired immunity and is only found in vertebrates.

1.1 List three (03) characteristic features of the adaptive immune system. (1.5 marks)

- i.
- ii.
- iii.

1.2 State two (02) immune mechanisms of adaptive immunity and briefly explain one of them. (04 marks)

- i.
- ii.
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1.3 List three (03) disorders of the immune system. (1.5 marks)

- i.
- ii.
- iii.

1.4 Briefly describe one of the disorders mentioned in 1.3. (03 marks)

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(Total: 10 marks)

2.

2.1 State the difference between radioimmunoassay (RIA) and enzyme linked immunosorbent assay (ELISA). (01 mark)

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2.2 Briefly explain the principle of RIA. (03 marks)

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2.3 List two (02) advantages and two (02) disadvantages of RIA. (02 marks)

Advantages	Disadvantages
i.	
ii.	

2.4 Discuss the sample collection for ELISA immunoassays. (04 marks)

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(Total: 10 marks)

3.

3.1 List two (02) main techniques used for the epitope retrieval in immunohistochemistry staining procedure. (02 marks)

i.
ii.

3.2 Briefly explain the essential steps to be taken to avoid background staining in enzyme immunohistochemistry. (03 marks)

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3.3 Briefly describe the effect of tissue under fixation on the immunohistochemistry staining results. (03 marks)

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3.4 List three (03) disadvantages of enzyme immunohistochemistry procedure compared to immunofluorescent technique. (02 marks)

- i.
- ii.
- iii.

(Total: 10 marks)

4.

4.1 State one (01) reason for using controls in immunohistochemistry staining procedure. (01 marks)

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4.2 List three (03) steps to be taken to avoid tissue sections coming off the slides during immunohistochemistry staining procedure. (03 marks)

- i.
- ii.
- iii.

4.3 Give three (03) reasons for the positive control to stain negative in IHC while the patient sample is positive. (03 marks)

- i.
- ii.
- iii.

4.4 Give three (03) precautions to be taken while cutting the sections to avoid false positive staining results in immunohistochemistry. (03 marks)

- i.
- ii.
- iii.

(Total: 10 marks)

PART C –Essay Questions (30 Marks)

1. The laboratory received some slides for IHC staining. Discuss the steps in indirect technique of enzyme immunochemistry using Horse radish peroxidase enzyme detection system as an example (explain the scientific basis of each step). (15 marks)

2. Describe the factors which cause false negative staining in enzyme immunohistochemistry. (15 marks)

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