



DURATION: THREE (03) HOURS

TIME: 01.30PM – 04.30 PM

PAK1 B – Structured Essay Questions (40 marks)

- 1.1. State the objective of sample preservation. (2 marks)

1.2. State one (01) fixative for each specimen given below (2 marks)

- 1.2.1. Tissue sections -

- 1.2.2. Fine needle aspiration biopsies -

- 1.3. List two (02) photosensitive analytes (2 marks)

I.

II.

- 1.4. Briefly describe the preservation of clinical specimens by lowering the temperature. (8 marks)

This image shows a full page of primary-ruled paper. It features ten evenly spaced horizontal dotted lines across the entire width of the page, providing a guide for handwriting practice. The background is white, and there are no margins or additional markings.

4

5

6

7

1.5. Write a short note on “point of care testing”.

(6 marks)

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(Total: 20 marks)

2. A timed urine sample is the urine collected between a specified time period, beginning at time x and completed at time y. This sample is the entire void during the specified time gap.

2.1. Briefly describe the importance of collection of 24hr urine samples.

(4 marks)

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2.2. List two (02) drawbacks of 24 hour urine specimen collection.

(2 marks)

- I.
-
- II.
-

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2.3. Briefly describe the patient preparation for 24 hour urine specimen collection

(4 marks)

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2.4. List five (05) analytes which requires 24 hour urine collection and state the clinical significance of each analyte given. (10 marks)

Twenty-four-hour urinary analyte	Clinical importance
Albumin	detect pathological proteinuria

3. Cerebrospinal fluid (CSF) analysis aids in the diagnosis of diseases of the central nervous system. Lumbar cerebrospinal fluid is obtained by a procedure known as lumbar puncture.

3.1. State two (02) functions of CSF. (4 marks)

- I.
- II.

3.2. List five (04) items which should be included in CSF collection tray. (4 marks)

- I.
- II.
- III.
- IV.

3.3. List two (02) changes of CSF specimen which can occur due to prolong standing before analysis. (2 marks)

- I.
- II.

3.4. Write a short essay on composition of CSF (10 marks)

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(Total: 20 marks)

4. In the investigation of male fertility, semen analysis is the most important diagnostic tool in the initial evaluation.

4.1. Briefly describe the normal characteristics of spermatozoa (6 marks)

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4.2. List 6 (six) abnormalities which can appear in sperm cell morphology. (3 marks)

I.

II.

III.

IV.

V.

VI.

4.3. List 3 (three) important instructions that you will give to a subject regarding collecting seminal fluid specimen. (3 marks)

I.

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II.

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II.

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4.4. List two (02) routine analysis which are performed in seminal fluid samples and briefly describe information which can be gathered from each analysis that you mentioned.

(8 marks)

[illegible]

(Total: 20 Marks)

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PART C – Essay Questions (30 marks)

1. Write an essay on “Importance of the physical examination of urine”. (30 marks)
2. Write an essay on “Risk management in biological sampling” (30 marks)

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