



# **NZIMLS EXAMINATION FOR QUALIFIED MEDICAL LABORATORY TECHNICIAN**

**MORTUARY  
2025**

**Part 1: Common Syllabus**

**Part 2: Discipline Specific Syllabus**

**Candidate Name:   «Name»**

**Candidate No.:       «Member\_No»**

### General Instructions

1. Total marks for paper = 100.
2. Marks for each question are as indicated.
3. The paper consists of:

	<i>Common</i>	<i>Discipline Specific</i>
<b>Part 1:</b>		
Section A; questions 1-30	6 Marks	9 Marks
Section B; questions 31-34	5 Marks	
Section C; questions 35-36	4 Marks	
Section D; questions 37-39	5 Marks	
Section E; questions 40-45	10 Marks	
<i>Total Part 1:</i>	<i>30 Marks</i>	<i>9 Marks</i>
<b>Part 2:</b>		
Section A; questions 46-48		6 Marks
Section B; questions 49-50		5 Marks
Section C; questions 51-60		30 Marks
Section D; questions 61-62		20 Marks
<i>Total Part 2:</i>		<i>61 Marks</i>
4. All questions are to be attempted.
5. Use of calculator is permitted.
6. Put all answers into the examination booklet provided.

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WORD DEFINITIONS	
Calculate	Perform a mathematical process to get the answer
Classify	Be able to designate to a group
Compare	Detail both the differences and the similarities
Complete	Finish, have all the necessary parts
Convert	Express in alternative units
Define	State meaning clearly and concisely
Describe	Give a complete account demonstrating a thorough practical knowledge
Discuss	Give details, explaining both the positives and negatives
Distinguish	To briefly point out the main differences
Expand	To express at length or in a greater detail
Identify	Recognise according to established criteria
Indicate	Briefly point out
Interpret	Express the results of a test or series of tests in a meaningful format
Label	Give a name to
List	Headings only
Match	Find one that closely resembles another
Name	A word or group of words used to describe or evaluate
Outline	Write brief notes incorporating the essential facts
State	Give the relevant points briefly

# PART 1

Section A; questions 1-30	<i>Common</i> 6 Marks	<i>Discipline Specific</i> 9 Marks
Section B; questions 31-34	5 Marks	
Section C; questions 35-36	4 Marks	
Section D; questions 37-39	5 Marks	
Section E; questions 40-45	10 Marks	
<b>Total Part 1:</b>	<b>30 Marks</b>	<b>9 Marks</b>

**PART 1: SECTION A – COMMON AND DISCIPLINE SYLLABUS MULTI CHOICE QUESTIONS**

Multi Choice Questions 1 – 30

Instructions: Multi-choice questions – circle one answer for each question. If you make a mistake, clearly cross-out the incorrect answer and circle your new choice.

Marks: 0.5 per correct answer

Total Marks: 15

**Example:** *Which of the below is a primary colour?*

- a. Green
- b. Purple
- ☒ c. Red
- d. Orange

C1. The prefix “hypo” refers to:

- a. Reduced
- b. Raised
- c. Absent
- d. Removed

C2. Olecranon bursitis is associated with which body joint?

- a. Shoulder
- b. Knee
- c. Hip
- d. Elbow

C3. Which organs are responsible for removing toxins from the human body?

- a. Liver and Stomach
- b. Kidney and Stomach
- c. Heart and Stomach
- d. Liver and Kidneys

C4. Annual Practicing Certificates are issued by:

- a. Medical Sciences Council of New Zealand
- b. The New Zealand Institute of Medical Laboratory Science (Inc.)
- c. IANZ
- d. Te Whatu Ora – Health New Zealand

C5. Principles that govern the right behaviour are:

- a. Standards
- b. Methods
- c. Criteria
- d. Ethics

C6. A lavender top blood tube contains which anti-coagulant?

- a. Sodium fluoride
- b. Ethylenediaminetetraacetic Acid
- c. Sodium citrate
- d. Heparin

C7. Test and tag is a requirement for:

- a. First Aid training
- b. Fire safety
- c. Electrical safety
- d. Biohazard safety

C8. Vitreous fluid is taken from:

- a. Eye
- b. Joint
- c. Artery
- d. Lumbar puncture

C9. Formalin is a solution primarily used in which laboratory department?

- a. Biochemistry
- b. Haematology
- c. Blood Bank
- d. Histology

C10. Which guidelines are used as industry standard for specimen transport?

- a. NATA guidelines
- b. H&S guidelines
- c. IATA guidelines
- d. IANZ guidelines

- C11. Laboratory computer systems have personalised logins to ensure that:
- a. HR know when staff are working
  - b. Management can track individual staff KPI's
  - c. Computer entries can be appropriately tracked
  - d. Errors are logged appropriately
- C12. Getting permission from a patient to proceed with a test is best described as:
- a. Informed consent
  - b. Patient confidentiality
  - c. Cultural competence
  - d. Patient information
- D13. When speaking with a family, you are asked what the cause of death was, how should you respond?
- a. Give them a brief outline in layman terms about the cause.
  - b. Politely advise them that you don't know.
  - c. Direct them to call NIIO to request that information.
  - d. Give them a copy of the PPM.
- D14. You have been asked to collect blood for toxicology but the femoral vein is void of blood, what is the next preferred sample?
- a. Chest cavity blood
  - b. Subclavian venous blood
  - c. Cardiac blood from the left ventricle
  - d. Splenic pulp



- D15. While preparing the paperwork prior to an autopsy, you notice a discrepancy with the name of the deceased, what should you do next?
- a. Change the name to what you think is the correct one and carry on.
  - b. Ignore the discrepancy if the details are close enough
  - c. Avoid using the name on any documents and choose two other identifiers instead
  - d. Call and inform NIIO of the discrepancy and let the pathologist know that there may be a delay with the case until it is rectified
- D16. What type of wound is most likely to show tissue bridging?
- a. Laceration
  - b. Abrasion
  - c. Incision
  - d. Thermal injury of the epidermis
- D17. Absence of soot in the airways of a charred body may suggest what?
- a. The person was deceased prior to the fire
  - b. An accelerant was used to start the fire
  - c. The person was alive prior to the fire
  - d. The person held their breath as to not breath in smoke before they died
- D18. Decalcification of tissue requires the tissue to be immersed in what solution?
- a. 37% Formalin
  - b. 70% Ethanol
  - c. Formic Acid
  - d. 50-50 Glutaraldehyde and formalin mixture

- D19. The presence of Wischnewski spots in the gastric mucosa is indicative of:
- a. Death from starvation
  - b. Hypothermia
  - c. Hyperthermia
  - d. Alcohol consumption immediately prior to death
- D20. When photographing the oral cavity of an infant, what is predominantly being looked for?
- a. The condition of the teeth
  - b. Injuries to the tongue
  - c. Injuries to the frenulum
  - d. Residue of ingested substances
- D21. What is a bolus?
- a. Masticated food
  - b. An obstruction in the bowel
  - c. The medical term for a clubbed finger
  - d. Fluid filled blister formed during decomposition
- D22. What postmortem change occurs due to the depletion of ATP (Adenosine triphosphate)?
- a. Livor mortis
  - b. Rigor mortis
  - c. Odorous gas formation
  - d. Autolysis

- D23. Where is the sella turcica located in the body?
- a. Base of the skull
  - b. In the larynx
  - c. Behind the retina of the eye
  - d. Left atrium of the heart
- D24. What disease causes granuloma similar in appearance to tuberculosis?
- a. Pneumonia
  - b. Lung cancer
  - c. Sarcoidosis
  - d. Covid 19
- D25. When photographing a subject, what setting would you adjust to change the depth of field?
- a. Shutter speed
  - b. The ISO setting
  - c. The distance between the camera and the subject
  - d. Aperture
- D26. Vomitus with a coffee ground appearance can usually be attributed to what?
- a. Upper gastrointestinal haemorrhage
  - b. Ingestion of a chemical substance
  - c. Overdose on prescription medication
  - d. Peritonitis

- D27. Which of the following findings is most consistent with death due to mechanical asphyxia (e.g., smothering or strangulation)?
- a. Cerebral oedema
  - b. Petechial haemorrhage
  - c. Otorrhagia (bleeding from the ear)
  - d. Epistaxis (bleeding from the nose)
- D28. Usually caused by a basilar skull fracture, Battle's sign (bruising behind the ear) is also known as:
- a. Post-auricular ecchymosis
  - b. Auditory haemorrhage
  - c. Hemotympanum
  - d. Otitis externa
- D29. What does DVI stand for?
- a. Decomposed Victim Identification
  - b. Disfigured Victim Identification
  - c. Disaster Victim Identification
  - d. Deceased Victim Identification
- D30. A death must be reported to coroner if:
- a. The death occurs due to a terminal illness
  - b. The death occurs during a medical procedure
  - c. The death is certified by a GP
  - d. The deceased is over 75 years old

*Total marks: 15*

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**END OF PART 1, SECTION A**

**PART 1, SECTION B – COMMON SYLLABUS QUESTIONS**

Labelling of diagrams e.g. anatomy, hazard identification, instrument





Questions 31 – 34

Total Marks: 5

C31. Name the following hazard symbols:

(2 marks)

(0.5 mark per correct answer)

a.		b.	
c.		d.	

a.

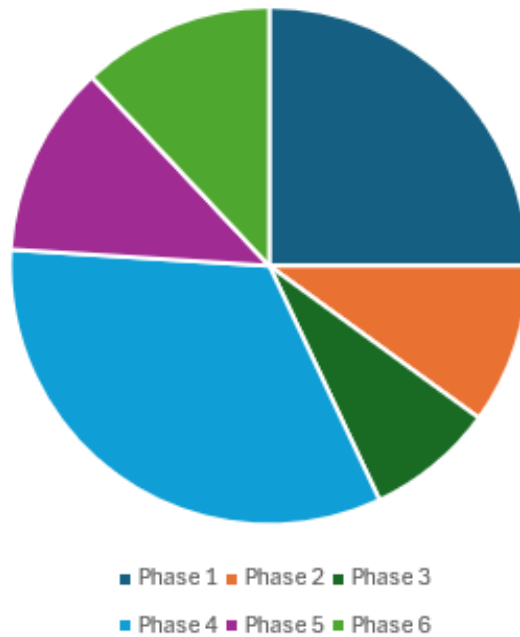
b.

c.

d.

C32. Name the type of graph pictured below:

(1 mark)

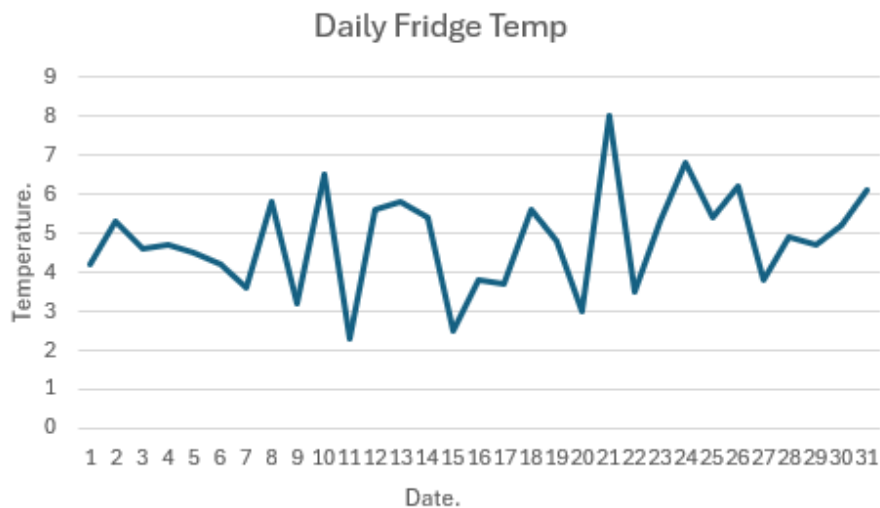


Type of graph:

What is the approximate percentage of the chart that is phase 1?

C33. Name the type of graph pictured below:

(1.5 marks)



Type of graph:

Name the axis:

Temperature = \_\_\_\_\_

Date = \_\_\_\_\_

C34. Name the piece of equipment pictured below:

(0.5 mark)



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*Total marks: 5*

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**END OF PART 1, SECTION B**

**PART 1, SECTION C – COMMON SYLLABUS QUESTIONS**

Tables, match column definition

Section C – Questions 35 to 36

Total marks: 4

- C35. Match the columns by **writing the Roman numeral from the test list in Column B** against the correct match in Column A. (2.5 marks)

Column A	Column B
a. Microtome	i. Inflammatory Marker
b. C Reactive Protein	ii. Coagulation
c. Prothrombin Time	iii. Foetal Red Cells
d. Polymerase Chain Reaction	iv. Molecular Technique
e. Kleihauer Test	v. Histology

Column A	Column B
a. Microtome	
b. C Reactive Protein	
c. Prothrombin Time	
d. Polymerase Chain Reaction	
e. Kleihauer Test	



C36. Expand the common abbreviations:

(1.5 marks)

<b>A.</b>	<b>B.</b>
a. CKD	
b. DKA	
c. AML	

*Total marks: 4*

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**END OF PART 1, SECTION C**

**PART 1, SECTION D – COMMON SYLLABUS QUESTIONS**

Calculations

Section D – Questions 37 to 39

Total marks: 5

C37. (2 marks)

a. A 200  $\mu\text{L}$  pipette is due for calibration. 5 aliquots of deionised water were taken and weighed. The results are below.

- i. 0.2015 gm
- ii. 0.2018 gm
- iii. 0.2009 gm
- iv. 0.2002 gm
- v. 0.2011 gm

Calculate the average weight of the aliquots taken?

(Show all calculations)

(1 mark)

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b. Calculate the percentage variance of the mean from the desired 200  $\mu\text{L}$ ?

(Show all calculations)

(1 mark)

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C38. Convert the following: (2 marks)

1.5 mL	to	_____	$\mu\text{L}$
3/8	to	_____	%
0.25 kg	to	_____	mg
7.5 cm	to	_____	mm

- C39. How many millilitres of alcohol is required to make 2.0 litres of a 70% alcohol bench wash solution? (1 mark)

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*Total marks: 5*

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**END OF PART 1, SECTION D**

**PART 1, SECTION E – COMMON SYLLABUS QUESTIONS**

Short answer questions (answers = one or more words, short sentences)

Section E – Questions 40 to 45

Total marks: 10

- C40. Define a notifiable incident according to the Health and Safety at Work Act 2015. (1.5 marks)

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- C41. Describe the theory and laboratory procedure of decontamination of biohazards and infectious agents in the laboratory. (2.5 marks)

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C42. Define patient confidentiality.

(1.5 marks)

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C43. Define the ISO 15189 standard, what is its function and who it is administered by in New Zealand.

(1.5 marks)

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C44. Describe precautions taken to ensure safety and security of laboratory data.

(1.5 marks)

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C45. Define the concept of safe practice within the laboratory.

(1.5 marks)

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*Total marks: 10 marks*

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**END OF PART 1, SECTION E**

# PART 2

*Discipline Specific*

Section A; questions 46-48

6 Marks

Section B; questions 49-50

5 Marks

Section C; questions 51-60

30 Marks

Section D; questions 61-62

20 Marks

**Total Part 2:**

**61 Marks**

**PART 2, SECTION A – DISCIPLINE SYLLABUS QUESTIONS**

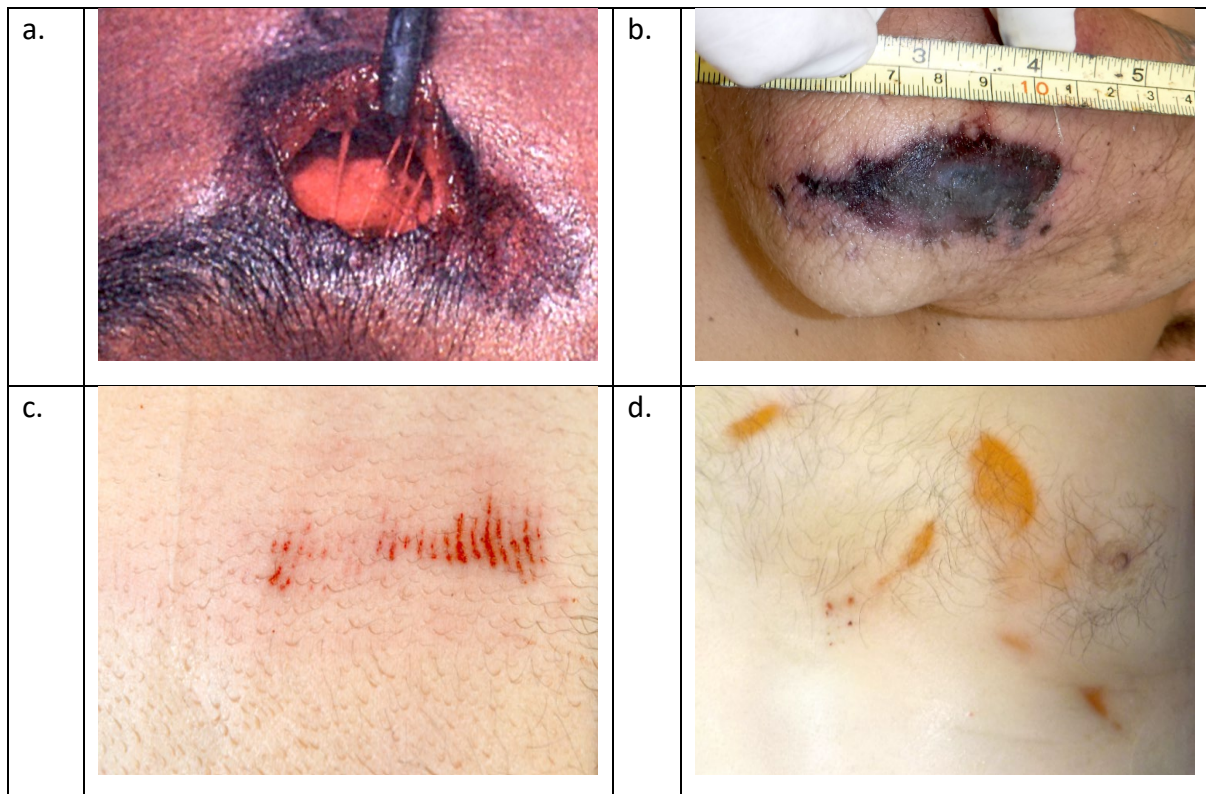
Labelling of diagrams e.g. anatomy, hazard identification, instrument

Questions 46 – 48

Total Marks: 6

D46. Name the type of injuries depicted:

(2 marks)



a.

b.

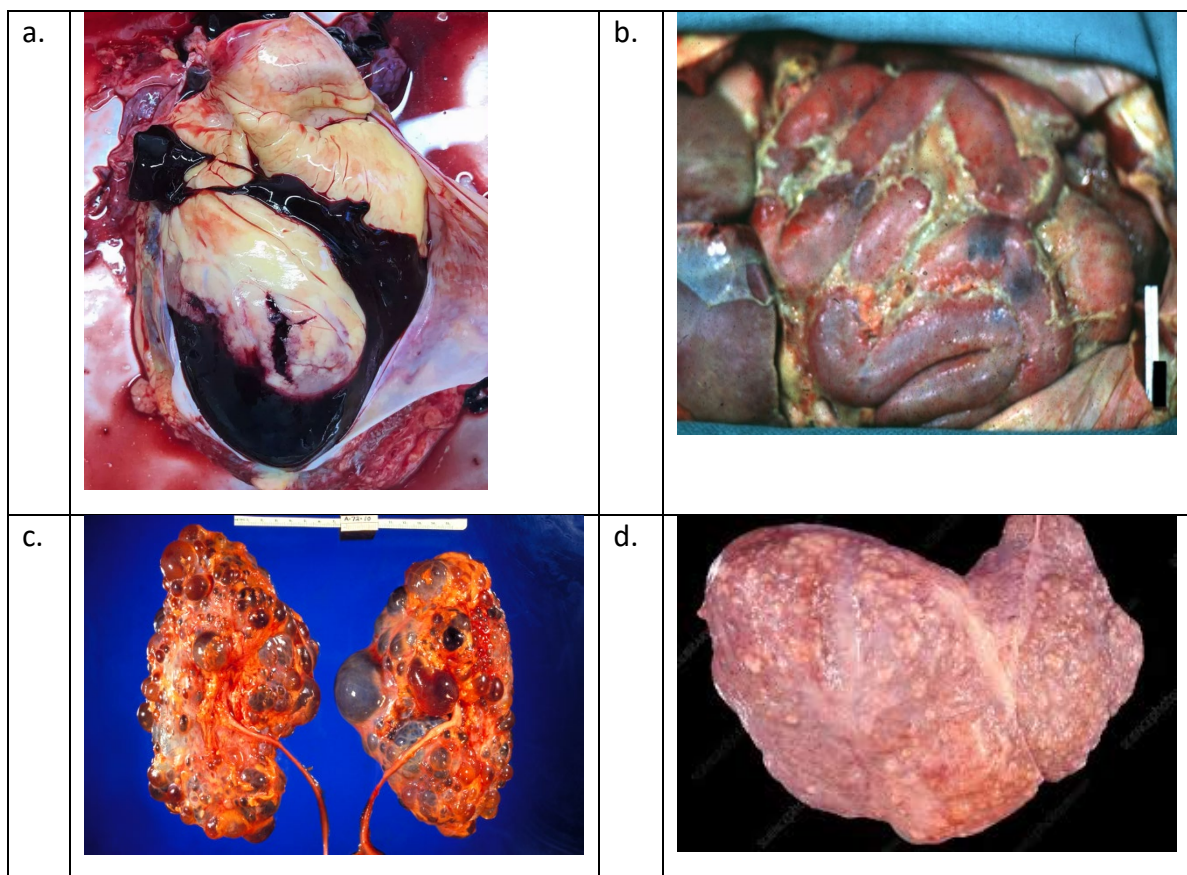
c.

d.



D47. Identify the pathology below:

(2 marks)



a. \_\_\_\_\_  
c. \_\_\_\_\_

b. \_\_\_\_\_  
d. \_\_\_\_\_

D48. Name the consumable items below and their typical use.

(2 marks)

a.



b.



a.

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b.

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Total marks: 6 marks

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END OF PART 2, SECTION A

**PART 2, SECTION B – DISCIPLINE SYLLABUS QUESTIONS**

Tables, match column definition

Questions 49 to 50

Total marks: 5

- D49. Match the columns by writing the **Roman numeral from the definition in column B against the correct match in column A** (2.5 marks)

Column A	Column B
a. Cor3	i. Deceased Identification Form
b. POL265a	ii. Initial report to the coroner
c. BDM39	iii. Authority to Release Body
d. POL47	iv. Immediate Lesser PM direction
e. Cor1d	v. Transfer of Charge of Body Form

Column A	Column B
a. Cor3	
b. POL265a	
c. BDM39	
d. POL47	
e. Cor1d	

- D50. Match the columns by writing the **Roman numeral from the organ or system in column B against the correct match in column A** (2.5 marks)

Column A	Column B
a. Atherosclerosis	i. Liver
b. Hydrocephaly	ii. Cardiovascular system
c. Aortic dissection	iii. Colon
d. Cirrhosis	iv. Heart
e. Diverticulitis	v. Brain

Column A	Column B
a. Atherosclerosis	
b. Hydrocephaly	
c. Aortic dissection	
d. Cirrhosis	
e. Diverticulitis	

*Total marks: 5 marks*

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**END OF PART 2, SECTION B**

**PART 2, SECTION C – DISCIPLINE SYLLABUS QUESTIONS**

Short answer questions (answers = one or more words, short sentences)

Questions 51 to 60

Total marks: 30

D51. What is the role of a forensic pathologist? (2 marks)

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D52. List **FOUR (4)** types of deaths that must be reported to the coroner. (2 marks)

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- D53. Define **cause**, **manner** and the **mechanism/mode** of death and give examples to illustrate the difference. (3 marks)

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- D54. Outline the importance of the Chain of Custody as it relates to a coronial investigation. (2 marks)

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D55. What is the purpose of regular audits of mortuary practices? (2 marks)

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D56. What are **FOUR (4)** ways to ensure that documentation is completed accurately and consistently within the mortuary? (2 marks)

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D57. List **SIX (6)** control measures that may be used when dealing with a potentially high risk case. (3 marks)

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D58. Outline in detail the process used to investigate deep vein thrombosis at autopsy. (6 marks)

[illegible]

D59. List **THREE (3)** types of Health and Safety hazards that you are likely to encounter in a coronial mortuary and a typical control measure for each. (6 marks)

[illegible]



- D60. Differentiate between **ante-mortem injury** and **post-mortem artifact**, (2 marks)  
and why this distinction is significant in forensic pathology.

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*Total marks: 30 marks*

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**END OF PART 2, SECTION C**

**PART 2, SECTION D – DISCIPLINE SYLLABUS QUESTIONS**

Essays

Questions 61 to 62

Total marks: 20

Total marks: 20

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D62. In essay format, describe the process of preparing a deceased person for an immediate coronial post-mortem.

(10 marks)

In your answer, include:

- The initial steps upon receipt of the body
- Identification and documentation procedures
- Infection control and safety measures
- Positioning and preparation of the body for the pathologist
- Your responsibilities as a mortuary technician during this process

[illegible]

*Total marks: 20 marks*

**END OF PAPER**

**EXTRA PAPER**[illegible]