



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES

DEPARTMENT OF CLINICAL HEALTH SCIENCES

QUALIFICATION : BACHELOR OF MEDICAL LABORATORY SCIENCES	
QUALIFICATION CODE: 08BMLS	LEVEL: 6
COURSE CODE: IMH621S	COURSE NAME: IMMUNOHAEMATOLOGY
SESSION: JAUNARY 2025	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION PAPER	
EXAMINER(S)	Ms AUNE SEKETA-ILLARIUS
MODERATOR:	Ms EDWIG SHINGENGE

INSTRUCTIONS	
<ol style="list-style-type: none"> 1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly. 4. Non-programmable calculators allowed. 	

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)

SECTION A: SHORT QUESTIONS**[16 MARKS]****QUESTION 1****[10]**

Indicate whether Temporal or Permanent deferral should be applied in the following scenarios:

- 1.1 History of viral hepatitis. (1)
- 1.2 Antibiotic treatment for upper respiratory infection. (1)
- 1.3 An over excited donor presenting with a smell of wine. (1)
- 1.4 A young lady on anti-depressants. (1)
- 1.5 A healthy male with positive history for Chagas disease. (1)
- 1.6 Sickle cell disease under control. (1)
- 1.7 A 49-year-old female who has been on high blood pressure treatment for the past 3 years. (1)
- 1.8 A young female on oral contraceptives for treatment of acne. (1)
- 1.9 A recent visit to a malaria endemic area. (1)
- 1.10 A male with recent ankle fracture forms a soccer match. (1)

QUESTION 2**[6]**

- 2.1 Identify any six elements of the quality management system (6)

SECTION B: SHORT & LONG QUESTIONS**[44 MARKS]****QUESTION 3****[20]**

- 3.1 Describe five types of donations, include one advantage and one disadvantage of each. (20)

QUESTION 4**[4]**

- 4.1 Discuss ANY two core principles of medical ethics. (4)

QUESTION 5**[10]**

Write notes on the following terms:

- 5.1 Partial D. (2)
- 5.2 Bovine Serum Albumin. (2)

- 5.3 Dolichos Biflorus. (2)
- 5.4 Erythracytapheresis. (2)
- 5.5 irradiated red blood cells. (2)

QUESTION 6 [10]

- 6.1 Discuss five factors that influence antigen antibody reactions. (10)

SECTION C: APPLICATION BASED [40 MARKS]

QUESTION 7 [16]

- 7.1 Tabulate Kell and Lewis antibodies under the following headings:
(2 marks for each point under the heading) (16)

	Most likely Immunoglobulin Class	Reaction temperature and method of detection	Transfusion reaction	Haemolytic Disease of the new-born
7.1.1 Kell				
7.1.2 Lewis				

QUESTION 8 [6]

An 18-year-old donating blood for the first time receives her blood group results:

ABO: O

Rh: partial D

- 8.1 Which blood group would be issued to her as patient? Provide a reason for your answer (2)
- (4)

- 8.2 Is haemolytic disease of the new-born something for her to worry about in future? Provide reasons for your answer. [10]

QUESTION 9

A doctor requires a paediatric red cell concentrate and a paediatric platelet concentrate for his patient.

9. 1 Tabulate the **cold chain storage**, **shelf life** and **transport** requirements of the two products mentioned above. (6)
- 9.2 Identify indication for each of the products required for this patient (2)
- 9.3 While reviewing a patients' blood requisition form, you discover that the patient is your neighbour's son. Are you allowed to discuss the baby's medical condition with your neighbour? Provide reasons for your answer (2)

QUESTION 10

- 10.1 A 26-year-old AB Rh negative patient presents at the hospital in active labour. Her records indicate that she has Anti D with a titre of 512. Her baby is born pale in colour. His cord blood results indicate that his red cell is strongly sensitized. His blood group is AB Rh positive, and he has high bilirubin levels. Discuss the treatment options for the baby and the mother. [8]
(8)

THE END [100 MARKS TOTAL]

