

# **NAMIBIA UNIVERSITY**

OF SCIENCE AND TECHNOLOGY

## Faculty of Health, Applied Sciences and Natural Resources

## **Department of Health Sciences**

QUALIFICATION: BACHELOR OF MEDICAL LABORATORY SCIENCES	
QUALIFICATION CODE: 08BMLS	LEVEL: 7
COURSE: MEDICAL LABORATORY MANAGEMENT	COURSE CODE: MLM711S
DATE: July 2022	SESSION:
DURATION: 3 Hours	MARKS: 110

SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Dr Elzabe van der Colf
MODERATOR:	Dr Vincent Nowaseb

#### **INSTRUCTIONS**

- 1. Answer all questions.
- 2. Please write neatly and legibly.
- 3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
- 4. No books, notes and other additional aids are allowed.
- 5. Mark all answers clearly with their respective question numbers.

### Permissable material

Non programmable calculator is allowed.

THIS QUESTION PAPER CONSISTS OF \_6\_ PAGES (Including this front page)

QUESTION 1 [15]

Select the appropriate / correct phrase to best describe the statement given. Write only the number of the question and the letter of the statement / word. (One mark each.)

- 1.1. Which of the following best describes a threat to an individual's professionalism:
  - A) Poorly educated workforce
  - B) Foreign bosses or co-workers
  - c) A confidentiality breach
  - D) Lack of formal classroom instruction
  - E) All of the above
- 1.2. Communication is not the process of
  - A) Providing information
  - B) Expressing feelings
  - c) Dominating the situation
  - D) Persuading others
  - E) Meeting social expectations.
- 1.3. A change in the mean of a control material in which the new mean is continuous but different from the original mean is most likely caused by the following
  - A) Random error
  - B) New lot of control material
  - c) Human error
  - D) Pre-analytic sampling error
  - E) None of the above
- 1.4. The goals of material management must include steps to guarantee that the following actions happen EXCEPT ONE:
  - A) The best priced product is procured
  - B) Spoilage is reduced to a minimum
  - c) Backorders and delays are avoided
  - D) Storage space is used to the best advantage
  - E) Financial resources are not tied up in inventory
- 1.5. Which of the following greatly reduces laboratory error rates?
  - A) Increasing staff responsibilities
  - B) Use of bar codes in sample labelling
  - c) Hand labelling of specimens
  - D) Increased test volume
  - E) Only (A) and (B)

- 1.6. Root cause analysis is designed to do all of the following EXCEPT
  - A) Assign blame
  - B) Improve process
  - c) Bring all involved staff together to address an issue
  - D) Ensure problems do not reoccur
  - E) Carry out corrective action
- 1.7. Laboratory manager must intervene and find ways to solve the problem but must not;
  - A) research the problem
  - B) identify the causes
  - c) solve it by making a decision from a variety of alternatives
  - D) shift the blame and accuse staff of making mistakes
  - E) Select the most probable cause of the problem
- 1.8. The ideal model for decision making are all of the following except one
  - A) Access to all the information is required to reach a decision
  - B) The quality of decision more important than speed to decision
  - c) Optimum decision: objective ranking of alternatives by firm criteria
  - D) Managers do not consider all the alternatives or consequences
  - E) Consider only a few alternatives and view them sequentially
- 1.9. A question that should not be considered during decision making
  - A) Who needs to know of this decision?
  - B) What action must be taken?
  - c) Will my supervisor like my decision?
  - D) Who is to take the action?
  - E) Is the action feasible?
- 1.10. Purchasing involves the following:
  - A) Determining what is needed.
  - B) Evaluation of which product meets the requirements
  - c) Which supplier offers the best value
  - D) Where can the required product best be obtained
  - E) All of the above
- 1.11. Corrective maintenance is
  - A) A scheduled programme of activities
  - B) Steps to be performed at specific intervals
  - c) Repair / replacement of parts when a failure occurs
  - D) Ongoing activity
- 1.12. Items to be purchased can be categorized into:
  - A) Operational supplies
  - B) Capital equipment
  - c) Services
  - D) A, B, and C

- E) All of the above.
- 1.13. The box price of a control product is not always the best indicator for the best price. Which of the following configurations of QC prices is the best option?
  - A) 50 x 10 mL at N\$1900 per box
  - B) 250 x 5 mL at N\$ 4250 per box
  - c) 50 x 20 at N\$ 4000 per box
  - D) 25 x 20 mL at N\$1800 per box
  - E) 50 x 5 mL at N\$1560 per box
- 1.14. The new HIV test that will be used as a screening test has the following parameters.
  - A) Sensitivity 99.5% and specificity 80%
  - B) Sensitivity 60.5% and specificity 95%
  - c) Sensitivity 60.5 and specificity 60%
  - D) Predictive value of 55.5 %
  - E) None of the above
- 1.15. The following statement is NOT true regarding financial management
  - A) Revenue must cover the costs and generate a surplus for growth and expansion
  - B) Running or operational costs include supplies needed to do the tests as well as rent of buildings and equipment
  - c) Staff salaries are not part of the variable costs
  - D) Capital cost include purchase of new equipment and facilities
  - E) Service and repair of instruments is also a running cost.

SECTION B {47 marks}

QUESTION 2 [14]

You have been preparing yourself to apply for a position as a laboratory scientist. The first task that you had to do was to prepare your resume to the specific position that you interested in.

#### Answer the following questions.

- 2.1 Explain the purpose of a resume. (3)
- 2.2 List eight (8) key aspects that have to be addressed or mentioned in a resume. (8)
- 2.3 Mention the key aspects / points for the style to use that you have to consider when compiling the resume. (3)

QUESTION 3 [15]

You have applied for a position as a medical technologist at the National Health Laboratory Service of Angola. You have been invited for an interview. You have prepared yourself for the interview by finding out about the organisation and preparing yourself for the possible questions and what would be expected of you, as well as reviewing your resume.

3.1 Explain in detail what you have to know before you enter the interview room. (5)

3.2 Explain how you should behave or not behave when you enter the room and during the interview. (Mention at least 5 points and give an example for each) (5 X 2)

QUESTION 4 [18]

Identify six (6) decision making tools and explain how they are used.

 $(6 \times 3 = 18)$ 

SECTION C {48 marks}

QUESTION 5 [18]

Once quality goals for building an effective internal QC system for your laboratory are established, a tactical plan designed to meet these goals should be prepared.

There are twelve points to consider when developing a tactical plan. Discuss any six (6). (6 X 3)

QUESTION 6 [14]

You are in charge of the clinical chemistry laboratory in ABC medicate laboratories. A new chemistry analyzer has been purchased. Explain in detail what has to be done before it can be taken into the routine operation and patient samples can be analyzed on the new instrument.

QUESTION 7 [16]

You have been appointed as area manager of the Nankuse laboratory organisation in Botswana. One of the deficiencies that you have detected is a lack of proper instrument maintenance. You have now been instructed by the laboratory manager to develop a preventive and corrective maintenance program.

7.1 Explain in detail your understanding of preventive and corrective maintenance; what it means and the importance of this. (10)

7.2 Explain in detail what process you would follow to develop and establish (A)a preventive maintenance (PM) program and process, and (B) how to develop a corrective maintenance program. (2 X 3 = 6)

Total marks 110