TEVETA

Technical Education, Vocational and Entrepreneurship Training Authority

DIPLOMA IN BIOMEDICAL ENGINEERING

LEVEL 6 YEAR II EXAMINATIONS

FINAL INTEGRATED SUMMATIVE EXAMINATIONS

SITTING: JULY/AUGUST 2025

SUBJECT: MEDICAL EQUIPMENT MANAGEMENT AND MAINTENANCE

TIME: THREE (3) HOURS **TOTAL MARKS: 100**

PASS MARK: 50

INSTRUCTIONS TO CANDIDATE

1. Write your Examination number and National Registration Card (NRC) number on the answer booklet provided. Ensure you append your signature in the space provided on the answer booklet.
2. Write the ANSWER SCRIPT SERIAL NUMBER on the examination register and on the entry slip.
3. There are EIGHT (8) questions in this paper. Answer FIVE (5) questions.
4. Diagrams may be used where necessary to clarify your answer.
5. Cell phones and programmable calculators are not allowed in the examination room.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

QUESTION 1

a) Describe seven (7) stages of the medical equipment life cycle. [14 marks]
b) Explain three (3) functions of the Medical Equipment Management Committee (MEMC) in a hospital. [6 marks]

[TOTAL MARKS 20]

QUESTION 2

a) Explain the difference between a capital budget and a recurrent budget, in each case give three (3) examples of costs associated. [10 marks]
b) Differentiate budgeting from financing. [4 marks]
c) Indicate six (6) hidden costs associated with operating medical equipment. [6 marks]

[TOTAL MARKS 20]

QUESTION 3

a) Define procurement. [2 marks]
b) State:
   i) Five (5) advantages of quotation-based procurement. [5 marks]
   ii) Three (3) disadvantages of quotation-based procurement. [3 marks]
c) Explain **five (5)** characteristics of a tender process. [10 marks]

[TOTAL MARKS 20]

QUESTION 4

a) Explain the information included on the 'invitation to bid' document during a tender process. [12 marks]
b) Describe '**delivery conditions**' in a purchasing document of a tender process. [8 marks]

[TOTAL MARKS 20]

QUESTION 5

a) Explain information to check for during unpacking of a new medical equipment at the hospital/health facility. [12 marks]
b) Describe **four (4)** documents needed during the receiving of new medical equipment on site. [8 marks]

[TOTAL MARKS 20]

QUESTION 6

Explain **five (5)** factors:
a) which may lead to the rejection of a medical equipment on site/ facility after delivery. [10 marks]
b) to consider, in ensuring quality of the procured medical equipment is guaranteed. [10 marks]

[TOTAL MARKS 20]

QUESTION 7

a) Explain **four (4)** occasions needed to update the medical equipment inventory.
[12 marks]

b) Outline information which should be recorded in a medical equipment inventory.
[8 marks]

[TOTAL MARKS 20]

QUESTION 8

a) Explain information that must be recorded when conducting preventive or corrective maintenance activities. [10 marks]

b) Describe the **five (5)** steps involved in ordering spare parts. [10 marks]

[TOTAL MARKS 20]