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TEVETA
Technical Education, Vocational and Entrepreneurship Training Authority

DIPLOMA IN PRODUCTION AND OPERATIONS MANAGEMENT

LEVEL 6 YEAR III EXAMINATIONS

FINAL INTEGRATED SUMMATIVE EXAMINATION

SITTING: JULY/AUGUST 2025

SUBJECT: QUALITY MANAGEMENT

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

PASS MARK: 50

INSTRUCTIONS TO THE CANDIDATES

1. Write your examination number and national registration card number on the answer booklet provided. Ensure to append your signature in the space provided on the answer booklet.
2. Write your answer SCRIPT SERIAL NUMBER on the examination register provided and the entry slip.
3. There are two (2) sections in this paper, Sections A and B.
4. Section A consists of ten (10) multiple choice questions carrying two (2) marks each. Answer all questions.
5. Section B has six (6) questions. Answer question Two (2) which is compulsory and any other three (3) questions of your choice from the remaining five (5).
6. Use pencils and graph papers (provided) for drawings and graphs.
7. Cell phones are not allowed in the examination room.

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

SECTION A MULTIPLE CHOICE QUESTIONS

ATTEMPT ALL QUESTIONS IN THIS SECTION

QUESTION 1

Write the letter of the correct answer in the answer booklet provided.

1.1 Which 'pillar of TQM' recognizes that product quality is a result of process quality?

a) Customer Focus

b) Process Management

c) Employee Empowerment

d) Continuous Improvement (2 marks)

1.2 How do Quality Leaders interact with people rather than directing and supervising them?

a) Scold

b) Train and coach

c) Fire

d) Threaten (2 marks)

1.3 Which of the following does not belong to external Failure Costs?

a) Supplier quality planning

b) Complaint investigations

c) Warranty claims

d) Liability costs (2 marks)

1.4 Which of the following is not a contribution made by Deming?

a) Deming Cycle

b) Deming's 14 points

c) Taguchi Loss Function

d) System of Profound Knowledge (2 marks)

1.5 Quality circles _____ problem solving capability.

a) Create

b) Delete

c) Stop

d) Eradicates (2 marks)

1.6 Which of the following describes best Juran's model of optimum quality costs?

a) It includes costs of internal and external failures curve, costs of appraisal and prevention curve and total quality costs curve.

b) It includes costs of internal and external failures curve and costs of appraisal and prevention curve.

c) It includes costs of internal and external failures curve and total quality costs curve.

d) It includes costs of appraisal and prevention curve and total quality costs curve.

(2 marks)

1.7 Which of the following is incorrect while referring to challenges faced while ensuring service quality?

a) Customer expectations change over a period of time.

b) Different customers can have different expectations.

c) Customer expectations do not change at all.

d) Knowledge of all customers about the service may not be the same. (2 marks)

1.8 The dimension of 'Product Quality' which appreciates agile manufacturing is _____

a) Aesthetics

b) Reputation

c) Responsiveness

d) Conformance (2 marks)

1.9 Which is the latest ISO 9001 version in the ISO 9000 family?

a) ISO 9001:1994

b) ISO 9001:2000

c) ISO 9001:2008

d) ISO 9001:2015 (2 marks)

1.10 Choose the incorrect statement regarding the need for quality.

a) Markets have become more competitive

b) Quality provides sustained performance

c) Quality provides customer satisfaction

d) It is the trend nowadays to introduce quality (2 marks)

Total (20 marks)

SECTION B

ATTEMPT QUESTION TWO (2) AND OTHER THREE (3) QUESTIONS

QUESTION 2 (COMPULSORY)

A factory processed 8000 metal cans of energy-boosting drinks for sports men and women, which were subjected to 100% inspection by 10 athletes. Many defects were found and recorded as shown in the table below:

	Athletes	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Reasons for scrapping or rejection	Discoloured	2	3	4	0	1	2	2	1	3	3
	Underweight	1	4	0	2	3	6	0	4	0	1
	Leakages	0	2	3	1	6	1	1	0	0	2
	Scratched	5	0	4	10	4	2	2	5	0	4
	Broken	2	3	1	5	3	10	0	4	5	6

i. Construct an appropriate chart, using a recommended graph. (16 marks)

ii. Comment on the performance of the process. (4 marks)

Total (20 marks)

QUESTION 3

a) State **two (2)** determinants of quality (2 marks)

b) With the aid of examples, describe **two (2)** fundamental types of quality control systems. (4 marks)

c) State **two (2)** classes of Benchmarking. (4 marks)

d) Explain **five (5)** types of inspection as regards quality of goods or services. (10 marks)

Total (20 marks)

QUESTION 4

Using an example, discuss the contribution of Joseph Juran in the development of Quality Systems. **(20 marks)**

QUESTION 5

a) State **five (5)** wastes according to Toyota Production System. (5 marks)

b) Explain **five (5)** characteristics of a Service Quality. (15 marks)

Total (20 marks)

20

QUESTION 6

Describe the following concepts of improving quality of the product or service:

a) Lean Production. (5 marks)

b) Quality Circles. (5 marks)

c) Total Quality Management. (5 marks)

d) Theory of Constraints. (5 marks)

Total (20 marks)

QUESTION 7

a) Quality is known by several definitions, based on the application. As a quality expert, state **five (5)** main definitions of Quality. (5 marks)

b) Explain **five (5)** important Principles of the ISO 9001:2008 series. (15 marks)

Total (20 marks)