higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1430**(E)**(M26)T

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N6

(8140066)

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09:00–12:00

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
PRODUCTION AND QUALITY CONTROL N6
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Show ALL calculations clearly and round off answers to TWO decimal places where applicable.
5. Rule off across the page on completion of each section.
6. Write neatly and legibly.

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SECTION A

QUESTION 1

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (1.1.1–1.1.15) in the ANSWER BOOK.

1.1.1 The financial function does not extend to other business activities.

1.1.2 Sometimes the services department do not fall directly under the production department, but nevertheless liaises closely with it.

1.1.3 The manufacturing quality level is not dependent on the accuracy with which specifications were adhered to during the manufacturing process.

1.1.4 Inspection is merely one component of production control.

1.1.5 Properties of a material, such as the melting point, hardness, flexibility, rust and resistance, are typical examples of chance variation.

1.1.6 A quality policy is dependent on the way in which clients judge the product.

1.1.7 The ultimate aspiration is to satisfy all customers all the time.

1.1.8 Good quality is attained only if a product or service complies with the purpose for which it has been designed.

1.1.9 The golden rule of JIT is that machines can be idle but people cannot.

1.1.10 When a product is being manufactured monthly, lead times are expressed in months.

1.1.11 Companies have to be motivated to advance production to increasingly higher standards.

1.1.12 The new setup reduction team should consist of real experts, operators and setup people.

1.1.13 The second facet of uniform plant load is operation loading.

1.1.14 After a particular setup has been chosen, a setup reduction team must be formed.

1.1.15 Once the employee gets into the rhythm of daily production, the day-to-day learning curves virtually increase.

(15 × 1) (15)

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1.2 1.2.1 Name the THREE elements of DBR methodology. (3)

1.2.2 Give FIVE advantages of efficient production management. (5)

1.2.3 Name TWO types of production processes. (2)
[25]

TOTAL SECTION A: 25

SECTION B

QUESTION 2

2.1 Name FIVE elements that form the foundation for implementing the logistics or flow-oriented concept to TOC management. (5)

2.2 Choose a description from COLUMN B that matches a term in COLUMN A. Write only the letter (A–E) next to the question number (2.2.1–2.2.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
2.2.1	Variances	A	financial position of a company over a specified period of time
2.2.2	Brainstorming	B	technique for generating ideas from a group of people
2.2.3	Linear	C	written plan expressed in terms of a financial amount
2.2.4	Budget	D	differences between *actual* and *planned* results
2.2.5	Balance sheet	E	changes by the same rate in an evenly time period

(5 × 1) (5)

2.3 Discuss FIVE steps in the theory of constraints (TOC) focusing process.
(5 × 3) (15)
[25]

TOTAL SECTION B: 25

SECTION C

QUESTION 3

3.1 Name EIGHT benefits resulting from just in time (JIT) implementation. (8)

3.2 The administrative function serves as an aid to management in achieving business objectives.

List TWELVE functions of this department. (12)

3.3 Summarise the most important advantages of the system approach in FIVE points. (5)
[25]

TOTAL SECTION C: 25

SECTION D

QUESTION 4

4.1 List SEVEN basic tools of quality. (7)

4.2 Give FIVE control elements of a proper functioning system. (5)

4.3 The theory of constraints (TOC) has broad applications in an organisation. Its benefits cross multiple boundaries and functions resulting in uses and benefits.

Give SEVEN benefits. (7)

4.4 State SIX contingency factors in the control process. (6)
[25]

TOTAL SECTION D: 25
GRAND TOTAL: 100

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