higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1410**(E)**(A11)T

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N4

(8140034)

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09:00–12:00

This question paper consists of 5 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
PRODUCTION AND QUALITY CONTROL N4
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. Sketches must be large, neat and fully labelled.
5. Write neatly and legibly.

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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 main reason for using material requirements planning (MRP) as a simulator is to anticipate and avoid potential future problems.

1.1.2 Any unexplained variation around the basic trend is called random variation.

1.1.3 One of the simplest ways of characterising a data series is by its average.

1.1.4 When calculating economic order quantity (EOQ), the carrying cost of inventory is assumed to be constant.

1.1.5 It is not acceptable to use THREE standard deviations on either side of the means as control limits.

1.1.6 Jobbing production usually deals with producing goods in batches.

1.1.7 The technique used when a product can be configured in a number of ways within the product family, is known as final assembly scheduling.

1.1.8 The production function is also known as the technical function.

1.1.9 The retrenchment strategy is usually followed when an enterprise performs poorly.

1.1.10 Quality involves doing the right things right, first time and every time.

1.1.11 By exploiting the strengths, top management cannot choose a strategy of growth through diversification.

1.1.12 A rule cannot be part of a procedure but it can be completely independent.

1.1.13 The business plan, financial plan, marketing plan and production plan need to be closely linked and should support one another.

1.1.14 Correct assumptions about the future are crucial for good planning.

1.1.15 It is correct to think that planning is the making of future decisions.

(15 × 1) (15)

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1.2 1.2.1 Name the THREE different types of production processes. (3)

1.2.2 Name the various kinds of comprehensive plans that are being made by both the head and subordinate personnel of an enterprise to achieve objectives. (7)

[25]

QUESTION 2

2.1 Choose a description from COLUMN B that matches a word or term in COLUMN A. Write only the letter (A–E) next to the question number (2.1.1–2.1.5) in the ANSWER BOOK

COLUMN A		COLUMN B	
2.1.1	Attribute data	A	satisfying customers' expectations
2.1.2	Variable data	B	information that is measured on a continuous scale
2.1.3	Linear	C	written plan expressed in terms of financial amount
2.1.4	Budget	D	information that is counted in whole numbers
2.1.5	Quality	E	changes at the same rate in an even time period

(5 × 1) (5)

2.2 Although the new performance measures being used by world class manufacturers vary considerably, they share seven common characteristics.

State these SEVEN common characteristics. (7)

2.3 State the SIX points on which a foreman in a workshop will base his daily tactical plans. (6)

2.4 What is the purpose of strategic planning? (7)

[25]

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QUESTION 3

3.1 A general simple application of the analysis of the external environment and the investigation of the internal environment is done with the help of an analysis called SWOT.

What does SWOT stands for? (4)

3.2 Indicate by means of a freehand sketch the various levels of strategic planning. (13)

3.3 Describe the main purpose of forecasting. (3)

3.4 Name the FIVE M's that summarise the responsibilities of production management. (5)
[25]

QUESTION 4

4.1 A company has the following orders for a certain product:

MONTH	UNITS
February	950 units
March	1 100 units
April	1 100 units
May	800 units
June	1 000 units

The starting inventory on 1 of February is 600 units.

Calculate the inventory level at the end of each month if production is maintained at 1 000 units per month. Give the answer in the form of a table showing the monthly *orders*, *production* and *inventory* levels. (10)

4.2 Name SEVEN benefits of using MRP. (7)

4.3 State FIVE functions of the production plan. (5)

4.4 State THREE possible causes for poor quality of production on the factory floor. (3)
[25]

TOTAL: 100

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