higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N6

(8140066)

20 November 2023 (X-paper)
09:00–12:00

Nonprogrammable calculators may be used.

This question paper consists of 6 pages.

011Q1E2320

Copyright reserved

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. Any calculations must be clearly shown, and the answers must be rounded off to TWO decimal places where appropriate.
5. Rule off across the page on completion of each section.
6. Use only a black or blue pen.
7. Write neatly and legibly.

Copyright reserved

QUESTION 1

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.15) in the ANSWER BOOK.

1.1 Doing the right things right the first time, every time is the primary objective of …

A cost-of-quality programmes.
B just-in-time manufacturing.
C theory of constraints.
D total quality management.

1.2 Which ONE of the following is not a characteristic of world-class performance measures?

A It includes non-financial measures
B It is closely linked to business strategy
C It remains constant over time
D It provides timely feedback

1.3 Differences between actual and planned results are known as …

A defects.
B variances.
C budgets.
D specifications.

1.4 Management accounting is made up of …

A cost accounting.
B differential accounting.
C responsibility accounting.
D All of the above

1.5 Costs that vary under different sets of conditions are known as … costs.

A direct
B differential
C failure
D indirect

1.6 A company's financial position at a particular point in time is given by the …

A balance sheet.
B current assets and liabilities.
C income statement
D profit and loss account

Copyright reserved

1.7 Success with developing new products is a measure of a company‘s …

A financial success.
B teamwork.
C innovation.
D marketing effectiveness.

1.8 Which ONE of the following statements is outdated?

A Quality always costs more.
B Productivity is more important than quality.
C Quality control competes with production.
D All of the above statements.

1.9 A series of activities which convert inputs into outputs are known as …

A processes.
B plans.
C procedures.
D work instructions.

1.10 Which one of the following will not be found in an income statement?

A Revenues
B Operating profit
C Shareholder’s equity
D Expenses

1.11 The cost of poor quality is given by …

A internal and external failure costs.
B prevention and appraisal costs.
C prevention, appraisal, and failure costs.
D appraisal and failure costs.

1.12 Which one of the following is a measure of reliability?

A Cycle time.
B Profit.
C Delivery performance.
D Cost of quality.

1.13 A strategy to focus on a very narrow and specific market opportunity is known as…

A world-class manufacturing.
B niche marketing.
C mass marketing.
D customer targeting.

Copyright reserved

1.14 An example of an internal set-up activity is …

A removing completed work from the machine.
B getting tools ready for the next job.
C getting documentation ready for the next job.
D None of the above.

1.15 Striving for simplicity, reducing throughput times and improving quality are key principles of the … philosophy.

A advanced manufacturing
B total quality
C just-in-time
D continuous improvement

(15 × 2) **[30]**

QUESTION 2

2.1 Describe what each of the following terms means in cost accounting and give ONE example of each:

2.1.1 Fixed costs

2.1.2 Variable costs

2.1.3 Indirect labour costs

2.1.4 Direct material costs

(4 × 2) (8)

2.2 Name THREE types of budgets commonly used in companies and explain them. (3 × 2) (6)

2.3 Describe the steps that should be followed to reduce set-up times. (4 × 1) (4)

2.4 Explain what is meant by preventative maintenance. (2)

2.5 Describe FIVE practical ways in which operators can contribute to the approach of preventative maintenance. (5 × 1) (5)
[25]

Copyright reserved

QUESTION 3

3.1 Name FIVE key features of Total Quality Management (TQM). (5)

3.2 Arrange each of the following quality-related costs as either Prevention-, Appraisal-, Internal failure-, or External failure costs:

3.2.1 Scrapping a non-conforming product at final inspection.

3.2.2 Repairing a faulty product returned from one customer.

3.2.3 Raw material inspection.

3.2.4 Implementing a formal quality management system.

3.2.5 Final product inspection.

3.2.6 Warranty charges.

3.2.7 Training operators in quality tools and techniques.

(7 × 1) (7)

3.3 Mention FOUR benefits of measuring the cost of poor quality. (4 × 1) (4)

3.4 Briefly explain the main benefits of eliminating incoming inspections. (2)

3.5 Describe the THREE steps that can be taken to eliminate incoming inspections. (3)

[21]

QUESTION 4

4.1 The management function covers the activities of all other functions and draws them together towards a common goal.

Summarise the SIX management processes of the management function.

(6 × 2) (12)

4.2 Discuss the limitations, criteria, and impact of the production-mix decision. (9)

4.3 Name THREE types of control. (3)

[24]

TOTAL: 100

Copyright reserved