higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1430**(E)**(M27)T

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N6

(8140066)

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09:00–12:00

This question paper consists of 6 pages.

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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. Any calculations must be clearly shown and the answers given to TWO decimal places where appropriate.
5. Rule off across the page on completion of each section.
6. Write neatly and legibly.

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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 The financial position of a company at a particular point in time is given by the ...

1.1
A balance sheet.
B current assets and liabilities.
C income statement.
D profit and loss account.

1.2 Which of the following will NOT be found in an income statement?

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

1.3 Assume that the direct costs involved with producing 1 unit of product, amount to R10. If the total cost of manufacturing 100 units is R1 400, it means that the manufacturing overhead has been allocated at a rate of ...

A R4 per unit.
B R10 per unit.
C R14 per unit.
D None of the abovementioned

1.4 Compared to financial accounting, management accounting …

A is strictly governed by generally accepted accounting principles.
B has no single standard or uniform structure.
C is compulsory.
D focuses mainly on the past and present.

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

A direct
B indirect
C differential
D failure

1.6 A financial approach that is used to assess the attractiveness of various alternatives is known as ...

A full-cost accounting.
B differential accounting.
C responsibility accounting.
D variance reporting.

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1.7 A plan stated in financial terms is known as a ...

A budget.
B income statement.
C balance sheet.
D variance report.

1.8 Focusing on a very narrow specialised part of the market is known as ...

A differentiation.
B innovation.
C market penetration.
D niche marketing.

1.9 The cost of poor quality is given by ...

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

1.10 Which ONE of the following statements is outdated?

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

1.11 Which of the following statements regarding Quality Circles is FALSE?

A They originated in Japan
B Managers select the improvement projects.
C They help to achieve employee involvement
D Employee involvement is voluntary

1.12 Series of activities which convert inputs into outputs are known as ...

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

1.13 A technique for understanding and improving processes is …

A statistical process control.
B mistake proofing.
C rapid feedback.
D All the abovementioned

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1.14 The number of past-due customer orders is a measure of a company's …

A responsiveness.
B reliability.
C flexibility.
D effectiveness.

1.15 Success with developing new products is a measure of a company's ...

A financial success.
B team work.
C innovation.
D marketing effectiveness.

(15 × 2) **[30]**

QUESTION 2

2.1 Explain the difference between the following costs. Use a diagram to illustrate each answer and give ONE example of each.

2.1.1 Fixed costs

2.1.2 Variable costs

(2 × 3) (6)

2.2 Describe the difference between the following activities and give TWO examples of each:

2.2.1 Internal set-up activities

2.2.2 External set-up activities

(2 × 3) (6)

2.3 Name THREE common types of waste in a manufacturing company. In each case, suggest ONE action that can be taken to reduce the problem. (6)

2.4 2.4.1 Describe what is meant by *cellular manufacturing*. (2)

2.4.2 State FOUR advantages of this approach compared to the traditional approach to factory layout. (4)

[24]

QUESTION 3

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

3.2 Categorise each of the following quality related costs as either *prevention*, *appraisal*, *internal failure* or *external failure* costs:

3.2.1 Raw material inspection

3.2.2 Final product inspection

3.2.3 Training operators in quality tools and techniques

3.2.4 Scrapping a non-conforming product at final inspection

3.2.5 Warranty charges

3.2.6 Implementing a formal quality management system

3.2.7 Repairing a faulty product returned by a customer

(7 × 1) (7)

3.3 State FOUR benefits of measuring the cost of poor quality. (4)

3.4 3.4.1 Explain the main benefits of eliminating incoming inspections. (2)

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

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QUESTION 4

4.1 4.1.1 Describe the THREE objectives of business according to the Theory of Constraints. (3)

4.1.2 Which ONE of the three objectives mentioned in QUESTION 4.1.1 is viewed as the most important and why? (2)

4.2 Name the THREE types of constraints that may be found in companies. (3)

4.3 Each day a company produces 20 bicycles and sells them for R1 000 each.

4.3.1 Calculate the daily throughput if the material cost is R400 per unit. (4)

4.3.2 How will the throughput be affected if two of the bicycles are rejected at final inspection and cannot be sold? (3)

4.4 4.4.1 Give a definition of *benchmarking*. (1 × 2) (2)

4.4.2 Briefly describe the FOUR types of benchmarking. (4 × 2) (8)

[25]

TOTAL: 100

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