higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N6

23 July 2021

This marking guideline consists of 5 pages.

Copyright reserved

QUESTION 1

1.1 1.1.1 Production is the process whereby goods and/or services are produced. (2)

1.1.2 A system is a well-ordered grouping of various interdependent components or elements with the aim of achieving a planned target. (2)

1.1.3 The PDCA cycle is a four-step problem-solving technique used to improve business processes.✓ The four steps are plan, do, check and act.✓ The PDCA cycle can be used to effect both major performance breakthroughs as well as small incremental improvements in projects and processes.✓✓ (4)

1.1.4 Quality is the extent to which a product or service meets the required standards or specifications as prescribed by the manufacturing or service organisation, with due allowance for the consumers' expectations. (3)

1.1.5 Takt is the German word for baton. (2)

1.1.6 A constraint is a process, process step or anything else that limits throughput and prevents the system from achieving its goals. (2)

1.2
- Providing staff
- Formulating job specifications
- Employment (recruitment, selection, placing and induction)
- Training and development of workers
- Conditions of service
- Remuneration
- Promotions
- Transfers
- Demotions
- Disciplinary measures and dismissals
- Industrial relations
- Social care
- Personal research and planning (Any 10 × 1) (10)

[25]

QUESTION 2

2.1 E
2.2 F
2.3 A
2.4 B
2.5 C

(5 × 1) **[5]**

QUESTION 3

3.1
- Budgets and budgetary control
- Costing and cost control
- Determining the reserve and dividend policy
- Financing
- Financial analysis of accounting data
- The internal audit
- External relations with the money and capital markets
- Investments and investment decisions
- Tax calculations and completion
- Insurance
- Wage calculation
- Distribution of dividends and credit control (Any 10 × 1) (10)

3.2 3.2.1 Size of the enterprise: As enterprises become bigger, control will become more formalised and impersonal, and pre-control as well as post-control will be used increasingly. Smaller enterprises, however, tend to implement more informal, personal and concurrent control.

3.2.2 Managerial level: First-line managers are permitted less freedom of interpretation than middle and higher-level managers. The higher the managers move in the management hierarchy, the greater the need for multiple control criteria.

3.2.3 Enterprise activity: Control criteria, standards and techniques for control have to be developed to adapt to the needs and work units of specific sections and departments. It will thus not necessarily be possible to implement control techniques and standards developed for the marketing department without alterations within the financial department.

3.2.4 Enterprise climate: Control over personal activities and informal control are more likely in enterprises where autonomy and confidence are present, than in cases where fear is the order of the day. In the latter case, formal control systems will be enforced by higher-level managers to ensure that performance is as intended.

3.2.5 Importance of the activity: If the costs related to control are high and the possibility of errors is limited, then the extent of the control system will be limited. Extended control should, however, be implemented, in spite of the costs, if a possible error would damage the total enterprise.

(5 × 3) (15)
[25]

QUESTION 4

4.1
- Size of the enterprise
- Managerial level
- Enterprise activity
- Decentralisation
- Enterprise climate
- Importance of the activity (6)

4.2
- Pre-control
- Concurrent or steering control
- Post-control (3)

4.3
- Provide economic estimates of throughput, operational expenses and inventory.
- Accumulate and integrate data from TOC, total quality management and related management models to ensure consistency in the reporting systems.
- Verify constraint identification.
- Provide capacity cost estimates and support for investment analysis of potential additions to capacity.
- Explain the various assumptions underlying differences from other strategic or tactical analyses.
- Work with the operating managers to identify solutions for easing constraints and their impact.
- Develop and sustain the activity-based cost management system to complement the information provided and required by TOC.
- Work to develop a comprehensive knowledge of incremental cost pattern and underlying cost structures to ensure that ongoing TOC decisions incorporate the impact on step-fixed and semi-variable cost throughout the organisation.
- Provide throughput contribution data.
- Identification of the relevant constraints for all decisions.
- Identify direct linkages between throughput and operational expenses.
- Report on the impact of constraints.
- Ensure that the finance function does not become a constraint. (13)

4.4
- Design capacity
- Effective capacity
- Actual capacity (3)

[25]

QUESTION 5

5.1
- Physical constraints
- Marketing constraints
- Policy constraints (3)

5.2 5.2.1 Throughput = sales less cost of sales/material costs.
= (R1 000 × R20) – (R400 × R20)✓
= R20 000 – R8 000✓
= R12 000✓✓ (4)

5.2.2 New throughput = (R1 000 × 18) – (R400 × R20)✓
= R18 000 – R8 000✓
= R10 000✓ (3)

5.3 Benchmarking is a structured process of searching for and identifying best practices, and then using this information for performance improvement. (2)

5.4
- Internal benchmarking: comparisons within large companies (e.g. between departments, plants, etc.).
- Competitive benchmarking: competition with competitors in the same industry.
- Functional benchmarking: comparison with similar business functions, but which do not necessarily produce the same products or services.
- Generic benchmarking: comparison with companies with similar work processes, but which are in a different line of business/industry.

(4 × 2) (8)
[20]

TOTAL: 100

Copyright reserved