higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

# MARKING GUIDELINE

## NATIONAL CERTIFICATE

## PRODUCTION AND QUALITY CONTROL N4

## 6 AUGUST 2018

**This marking guideline consists of 7 pages.**

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## SECTION A

## QUESTION 1

1.1
1.1.1 True
1.1.2 True
1.1.3 False
1.1.4 True
1.1.5 True
1.1.6 True
1.1.7 False
1.1.8 True
1.1.9 False
1.1.10 False
1.1.11 True
1.1.12 True
1.1.13 True
1.1.14 False
1.1.15 True

(15 × 1) (15)

1.2
- All goods and objectives to be achieved by the specific plans should be decided upon.
- Standards are derived from the objective and norms to which the performance of work should comply. It should supply the targets against circumstances, for example can be measured weekly, monthly, quarterly and half-yearly.
- Programs give an explanation of the steps to be followed and the order in which different activities should be performed.
- Schedules determine the time at which each activity must begin and end.
- Procedures and methods prescribe a fixed manner in which specific tasks, which require regular attention, should be performed.
- Rules and regulations should give fixed actions of what should NOT be done in a given situation with the purpose of achieving the objectives according to the workload and downplans and procedures.
- A budget is a quantified statement of the expected results or objectives that are expressed in financial and physical units. It should include some of the standards that are compared to the actual achievements in the control process in order to discover deviation, for corrective action. (7 × 1) (7)

1.3
- It determines the overall rate of production.
- It serves as input to the MPS.
- It communicates overall objectives to all departments.
- It promotes teamwork between departments.
- It provides a means of controlling inventory levels and order backlogs.
- It introduces performance measures. (Any 3 × 1) (3)

**[25]**

**TOTAL SECTION A: 25**

## SECTION B

## QUESTION 2

2.1
- Each department must be allocated a budget to which it must adhere.
- Any negative variances must be investigated and the responsible manager must be held accountable.
- Lead times must be regularly analysed and reduced wherever possible.
- All wastage must be reduced to a minimum.
- Direct and indirect labour costs must be analysed and reduced where possible without jeopardising quality or performance.
- Raw material costs must be critically evaluated and alternative suppliers should be considered if they offer the same materials, delivery performance and customer service at a lower price. (6)

2.2 PRODUCTS
- Motor cars
- Vaccines
- Maize
- Video tapes
- Bicycles
- Text books
- Calculators
- Houses
- Components
- Machines
- Chemicals

SERVICES
- Police protection
- Refuse removal
- Health
- Transportation (15 × 1) (15)

2.3
- Will save storage space
- Reduces cost of carrying inventory
- Reduces wastage and damage as it will be used immediately
- Will save time (4 × 1) (4)

**[25]**

**TOTAL SECTION B: 25**

## SECTION C

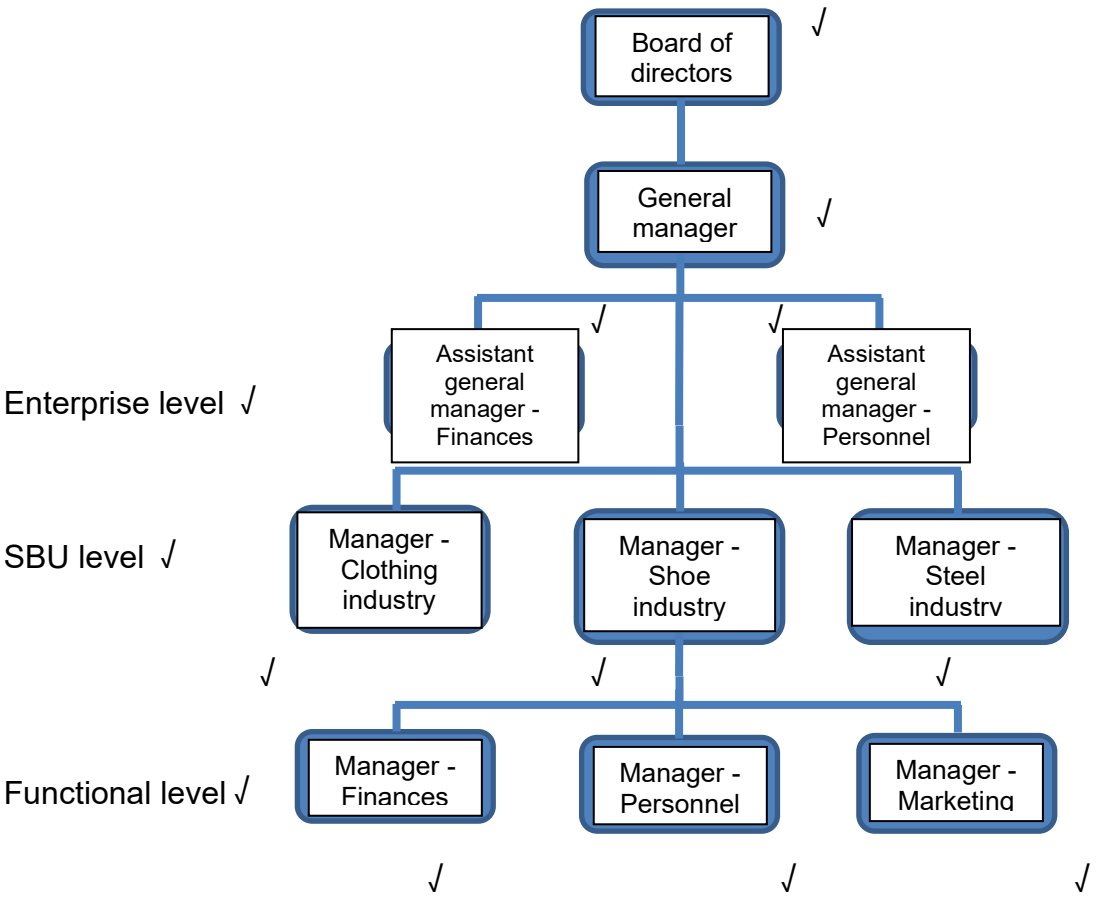
## QUESTION 3

3.1
- Peak/Dip: When a measurement occurs above or below certain limits
- Trends: Several data points show an increase or decrease in trends
- Level change: Several data points occur on one side of the average
- Low variation: Unusual small change occurs in the data
- Erratic: Unusual big change occurs in the data (5 × 1) (5)

3.2
- The relentless pursuit of continuous improvement in all business activities
- Large investments in education and training in the whole company
- Superior quality, reliability and customer service
- Constantly reducing lead times
- Greater responsiveness to customer needs
- Superior innovation and product development
- Constantly improving productivity
- Relentless elimination of activities that do not add value, for example utilising waste by integrating it in the business systems that focus all the resources of the business in pursuit of its objectives and goals
- Top management's commitment to continuous improvement
- The encouragement of teamwork to improve business processes

(Any 7 × 1) (7)

3.3



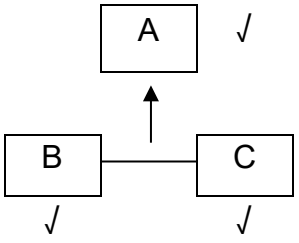

(13 × 1) (13)
**[25]**

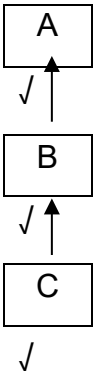
**TOTAL SECTION C: 25**

## SECTION D

## QUESTION 4

4.1 **HORIZONTAL DEPENDENCY** **VERTICAL DEPENDENCY**




(2 × 3) (6)

4.2
- Planning priorities are clear
- Improve delivery performance
- Improve customer service and satisfaction
- Low cost
- Increased productivity
- Reduced lead time
- Reduced inventories
- Better quality of working life
- Fewer shortages of raw materials
- Quality products (10 × 1) (10)

4.3 4.3.1 SUPPLYING EX-STOCK involves completing orders based on forecasts from stock which has built up. (1)

MAKE-TO-ORDER involves first receiving a customer's order and then producing a product to meet the customer's specification. (2)

4.3.2 ADVANTAGES OF EX-STOCK
- Easier to achieve balanced/even production
- Few change-overs/setups
- Can produce in large volumes
- Fewer orders (Any 2 × 1) (2)

DISADVANTAGES OF EX-STOCK
- Very dependent on forecasting, which can be wrong
- Can result in unwanted stock
- Cost of carrying inventory is high (Any 2 × 1) (2)

4.3.3 ADVANTAGE OF MAKE-TO-ORDER
- Inventory-carrying costs are low
- No risk of carrying unwanted stock (Any 1 × 1) (1)

DISADVANTAGE OF MAKE-TO-ORDER
- More change-overs/setups
- Difficult to balance production (Any 1 × 1) (1)

**[25]**

**TOTAL SECTION D: 25**
**GRAND TOTAL: 100**

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