higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1420(**E**)(J31)T

NATIONAL CERTIFICATE

PRODUCTION AND QUALITY CONTROL N5

(8140055)

31 July 2018 (X-Paper)
09:00–12:00

This question paper consists of 4 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
PRODUCTION AND QUALITY CONTROL N5
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.

EC

QUESTION 1

Define the following:

1.1 Capacity (2)

1.2 Design capacity (2)

1.3 Fishbones (3)

1.4 Lean thinking (3)

1.5 Order costs (3)

1.6 Lead time (2)

[15]

QUESTION 2

2.1 A work centre operates for 16 hours per day, five days a week, with a utilisation of 80%. On average, the work centre takes 6,5% longer to complete orders than the standard time.

Calculate the rated capacity of the work centre. (5)

2.2 Explain what is meant by the term *bottleneck* and describe how companies should manage such centres to minimise delays. (7)

2.3 Name and describe the FOUR elements of lead times. (8)

[20]

QUESTION 3

3.1 Explain the following:

3.1.1 Make to order

3.1.2 Make to stock

(2 x 3) (6)

3.2 Briefly define the following types of production:

3.2.1 Continuous production

3.2.2 Lot or batch type production

3.2.3 Job shop production

3.2.4 Repetitive production

3.2.5 Just in time production

(5 × 2) (10)

3.3 Describe the methods of determining capacity. (4)

[20]

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QUESTION 4

4.1 List the most important SIX uses of cost data. (6)

4.2 The sales forecast of a department is given in the table below.

Copy the table in the ANSWER BOOK and complete it to show the production plan and load for the machine which is working on a waste factor of 6% and a load profile of 2 units per hour.

	Week 1	**Week 2**	**Week 3**	**Week 4**
Sales forecast (units)	100	120	140	160
Production plan (units)				
Load (hours)				

(8)

4.3 Name SIX performance measurements that are important to ensure control on the factory floor. (6)

[20]

QUESTION 5

5.1 List SIX precautions which must be taken into consideration in order to ensure the physical control of inventory. (6)

5.2 Name the FIVE aspects of a business that inventory management seeks to optimise. (5)

5.3 What are the THREE most important objectives of cost accounting? (3)

5.4 Write short notes about the following:

5.4.1 Break-even analysis (6)

5.4.2 Job costing system (5)

[25]

TOTAL: 100

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