higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T100**(E)**(A14)T

NATIONAL CERTIFICATE

BUILDING ADMINISTRATION N5

(4090045)

14 August 2019 (X-Paper)
09:00–12:00

This question paper consists of 8 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BUILDING ADMINISTRATION 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.

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QUESTION 1

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Free haul is included in the bill of quantities under the item Carting Away.

1.2 Undisturbed earth swells when it is moved.

1.3 A contractor should verify a variation order issued by the architect with the client before he starts working.

1.4 A contractor or architect can call for a site meeting.

1.5 Unfixed materials should not be removed from site without the architect's permission.

1.6 The pricing for any variations of similar works appearing in the BOQ are taken from the BOQ.

1.7 If the client occupies part of the building before handing over the patent liability is still valid.

1.8 The main contractor is not liable for defects caused by subcontractors.

1.9 A travelling crane is most suited for congested sites.

1.10 The interim payment certificate is issued by the client.

(10 × 1) **[10]**

QUESTION 2

Complete the following sentences by filling in the missing word or words. Write only the word or words next to the question number (2.1–2.10) in the ANSWER BOOK.

2.1 Any deviation from the original drawings or specification is called a …

2.2 To determine if the deviation is within the client's budget a … is prepared by the QS.

2.3 Deviations which are difficult to price are calculated as …

2.4 Items which cannot be measured at the time of preparing the BOQ are stated as …

2.5 Should the deviations increase be more than the tender price it is called …

2.6 The local authority official who ensures that the building regulations are followed is called the …

2.7 The … clause is inserted in large contracts to protect the contractor from the effect of price increases in labour or materials during the term.

2.8 The … represents the employer on site and reports directly to him.

2.9 Some clients insist that the contractor signs a …to prevent him from absconding without finishing the work.

2.10 The …appoints the nominated supplier.

(10 × 1) **[10]**

QUESTION 3

3.1 List FIVE different categories of earth work. (5)

3.2 Give FIVE advantages of mechanisation. (5)
[10]

QUESTION 4

4.1 Differentiate between the terms *extra over* and *extras found* in the BOQ. (2)

4.2 What is the purpose of specifications in a contract? (4)
[6]

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QUESTION 5

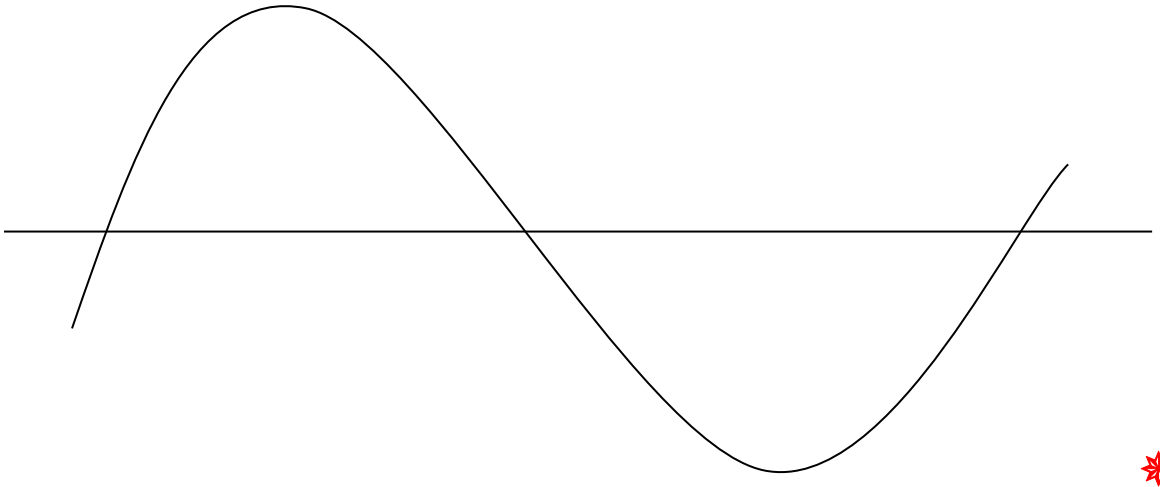
Roughly reproduce the mass haul diagram below in the ANSWER BOOK and show each of the following:

5.1 Cut

5.2 Fill

5.3 Balance line

5.4 Average haul distance



(4 × 1) **[4]**

QUESTION 6

6.1 What are the objectives of planning? (5)

6.2 List SEVEN administration or management processes. (7)

6.3 What are the factors to be considered when delegating? (5)
[17]

QUESTION 7

The longitudinal section of the ground profile of a road is shown below.

Use Simpson's rule to find the volume if the width of the road is 10 M.

DISTANCE(m)	1	2	3	4	5	6	7	8	9
DEPTH (m)	2	4	5	7	9	5	3	2	0

[8]

QUESTION 8

8.1 Define each of the following:

8.1.1 Completion list

8.1.2 Preliminary completion list

8.1.3 Defects list

8.1.4 Patent defects liability period

8.1.5 Defects liability

(5 × 2) (10)

8.2 What factors should be considered before moving onto a congested site to start a job? (4)

8.3 What are the documents of a contract in construction? (6)
[20]

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QUESTION 9

Study the programme and progress chart below used for a construction project. Use the given key and answer the questions.

PROGRAMME AND PROGRESS CHART

OPERATION	weeks 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EARTH WORK																
FOUNDATION																
SHUTTERING COLUMNS																
CASTING CONCRETE																
BRICKWORK																
ELECTRICIAN																
PLUMBING																
PLASTERING																
DOORS AND WINDOWS																
GABLE																
ROOF SHEETS																
ELECTRICIAN																
PLUMBING																
GLAZING																
PAINTING																

KEY

Programme

Progress

9.1	What was the duration of the project?	(1)
9.2	Which operation was delayed first?	(1)
9.3	Which operations were scheduled for the last week?	(2)
9.4	Which other operations got delayed because of brick work?	(2)
9.5	Which operation was completed earlier than scheduled?	(1)
9.6	How long was the fixing of doors and windows delayed?	(1)
9.7	How many weeks did the shuttering and casting concreting take in total?	(1)
9.8	Which tradesman was on site first?	(1)
9.9	Was the project finished on time?	(1)
9.10	Give FOUR possible reasons why you think the brickwork was delayed.	(4)
		[15]

TOTAL: 100

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