higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BUILDING ADMINISTRATION N5

(4090045)

23 July 2021 (X-paper)
09:00–12:00

This question paper consists of 6 pages.

001Q1G2123

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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. Start each question on a new page.
5 Only use a black or blue pen.
6. Write neatly and legibly.

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QUESTION 1

Various options are given as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Which one is a fixed machine?

A Back actor
B Guyed derrick
C Non-tilting drum mixer
D Scraper

1.2 Which one of these is not an excavator?

A Back acter
B Drag line
C Bulldozer
D Tractor shovel

1.3 Which one of these machines is used to excavate vertically?

A Face shovel
B Drag line
C Grader
D Scotch derrick

1.4 What is a power float used for?

A Levelling wood surfaces
B Levelling plastering
C Floating road surfaces
D Levelling concrete surfaces

1.5 Which one of these machines is used for making trenches for laying pipes?

A Tractor shovel
B Scraper
C Continuous loader
D Back actor

1.6 Which one of these machines has a number of steel projections fitted to the surface of the roller?

A Solid wheel roller
B Pneumatic-tyred roller
C Tamping roller
D Vibratory roller

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1.7 Which one of these machines is used to level large areas?

A Bulldozer
B Grader
C Scraper
D Drag line

1.8 Which one of these is not a mobile mixer?

A Non-tilting drum mixer
B Tilting drum mixer
C Split drum mixer
D Truck mixer

1.9 Which one of these is not a power source for mechanical plant?

A Petrol
B Diesel
C Oil
D Electricity

1.10 This crane can be dismantled and reassembled from floor to floor:

A Guyed derrick
B Scotch derrick
C Travelling crane
D Mono-tower derrick

(10 × 1) **[10]**

QUESTION 2

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (2.1–2.5) in the ANSWER BOOK.

2.1 A contractor can do a variation on an architect's verbal instruction.

2.2 Omissions are savings.

2.3 A separate contract has to be drawn up for extras.

2.4 Extensions of time are calculated by using day works.

2.5 Variation orders are issued by a clerk of works.

(5 × 1) **[5]**

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QUESTION 3

3.1	What are the criteria used when choosing a specific machine?	(3)
3.2	Explain *spotting.*	(2)
3.3	What is *preventive maintenance*?	(1)
		[6]

QUESTION 4

4.1	Name the FIVE stages of contract planning.	(5)
4.2	List the points to consider when doing a site layout.	(5)
4.3	What is *period planning*?	(2)
4.4	Give any THREE reasons for deviation from the original plan.	(3)
		[15]

QUESTION 5

5.1	The main contractor has certain obligations to a subcontractor.	
	Name any THREE.	(3)
5.2	What is the difference between a *nominated subcontractor* and the *builder's own subcontractor*?	(2)
		[5]

QUESTION 6

6.1	State FOUR duties of a storekeeper.	(4)
6.2	How would one control material losses from a site?	(4)
6.3	What should one do if one detects a damaged material when receiving a delivery?	(2)
		[10]

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QUESTION 7

7.1 State FIVE tasks that must be completed before handing over a project. (5)

7.2 Define the following:

7.2.1 Practical completion certificate

7.2.2 Defects list

7.2.3 Patent defects liability period

7.2.4 Defects liability

7.2.5 Period of maintenance

(5 × 2) (10)
[15]

QUESTION 8

8.1 Explain how you would measure efficient site administration. (3)

8.2 List the architect's pre-tender duties. (5)

8.3 How would you measure progress on site? (2)

8.4 When building a house, at which stages would you require approval from a building inspector? (5)
[15]

QUESTION 9

9.1 State the purpose of specifications in a building project. (4)

9.2 What is the content of the weekly report by the clerk of works to the architect? (4)
[8]

QUESTION 10

If the distance is 20 m, use the mid-ordinate method to find the cross-sectional area and volume of the excavation below:

Distance (m)	0	2	4	6	8	10	12	14
Depth (mm)	0	200	400	600	800	1 000	1 200	1 400

[11]

TOTAL: 100

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