higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BUILDING ADMINISTRATION N5

(4090045)

23 April 2021 (X-paper)
09:00–12:00

This question paper consists of 6 pages and 1 answer sheet.

305Q1A2123

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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

1.1 Various options are given as possible answers to the questions. Choose the answer and write the letter (A–D) next to the question number (1.1.1–1.1.5) in the ANSWER BOOK.

1.1.1 A grader is used for …

A clearing the site.
B trenching.
C levelling.
D excavating.

1.1.2 A tractor shovel is used for …

A trenching.
B levelling.
C excavating.
D loading.

1.1.3 A rammer is used for …

A levelling.
B mixing concrete.
C compacting.
D trenching.

1.1.4 Scotch derrick is used for …

A levelling.
B compacting.
C lifting.
D excavating.

1.1.5 The machine suitable for vertical excavation:

A Back actor
B Bulldozer
C Face shovel
D Dragline

(5 × 1) (5)

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1.2 Identify each of the pieces of machinery or tools used in the construction industry:

1.2.1



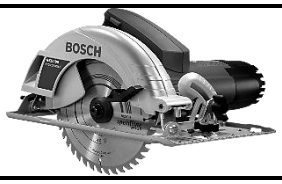
1.2.2



1.2.3



1.2.4



1.2.5



1.2.6



1.2.7



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1.2.8



1.2.9



1.2.10



(10 × 1) (10)
[15]

QUESTION 2

2.1 Define the terms:

2.1.1 Completion list

2.1.2 Preliminary completion list

2.1.3 Defects list

2.1.4 Patent defects liability period

2.1.5 Defects liability

(5 × 2) (10)

2.2 2.2.1 Give TWO reasons why employers insist on retention guarantee from the contractor. (2)

2.2.2 Explain the procedure to follow in the event of a dispute between the contractor and the employer. (3)

2.2.3 When is a site regarded as an efficient site? (3)
[18]

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QUESTION 3

3.1 Name THREE factors to keep in mind when placing the site office on a site. (3)

3.2 Briefly define the term *schedule of rates.* (2)

3.3 Which FIVE factors regarding the planning of site personnel should be considered before starting a new project? (5)

3.4 List FIVE uses of drawings in a project. (5)
[15]

QUESTION 4

4.1 Give FOUR reasons for material loss on a large construction site. (4)

4.2 Explain the procedure to follow when materials are transferred from one site to another. (4)

4.3 Why do sites without proper programming and scheduling usually fail? (4)

4.4 List the THREE stages of production planning in the building industry. (3)
[15]

QUESTION 5

5.1 Name FOUR duties of the quantity surveyor working with the architect. (4)

5.2 List FIVE problems that normally occur on a congested site. (5)

5.3 Name FIVE points to attend to before handing over a site. (5)

5.4 What should be included in a clerk of works' weekly report to the architect? (5)
[19]

QUESTION 6

6.1 Explain how to prepare the slump for a slump test. (5)

6.2 The distance and coordinates for the cut and fill of a mass haul curve are given on the ANSWER SHEET (attached).

Complete the table by entering the missing values. (13)
[18]

TOTAL: 100

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ANSWER SHEET EXAMINATION NUMBER: | | | | | | | | | | | | | |

Submit the ANSWER SHEET together with the ANSWER BOOK.

TABULATION OF VALUES FOR A MASS HAUL CURVE

	END AREA			AVERAGE AREA		VOLUME		CUMULATIVE
DISTANCE	CUT	FILL	X SF = 1,1	CUT	FILL	CUT	FILL	VOLUME
0	0	0						
20	0	-21						
40	0	-26						
60	24	0						
80	36	0						
100	42	0						
120	28	0						
140	0	-8						
160	0	-16						
180	0	-20						

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