higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

BUILDING ADMINISTRATION N5

(4090045)

20 April 2020 (X-paper)
09:00–12:00

This question paper consists of 6 pages and 1 addendum.

305Q1A2020

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BUILDING ADMINISTRATION N5
TIME: 3 HOURS
MARKS: 150

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. Write neatly and legibly.

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QUESTION 1

1.1 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 (1.1.1–1.1.5) in the ANSWER BOOK.

1.1.1 When the contractor has completed most of the work and hands over part of the building the architect issues a …

A completion certificate.
B interim payment certificate.
C certificate of practical completion.
D valuation certificate.

1.1.2 The period from the date of practical completion to three months afterwards is known as …

A completion period.
B patent defects liability period.
C preliminary completion period.
D defects liability period.

1.1.3 The list of any outstanding work that needs to be completed by the contractor to qualify him to get a certificate of practical completion is called a …

A defects list.
B completion list.
C preliminary completion list.
D patent defects list.

1.1.4 Usually with a contract any disputes are settled by the …

A court.
B municipality.
C building inspector.
D arbitrator.

1.1.5 In the event of a change in any part of the drawings, the architect shall issue the contractor with a/an…

A interim certificate.
B completion list.
C variation order.
D notice.

(5 × 1) (5)

1.2 Complete the following sentences by writing down the missing word or words next to the question number (1.2.1–1.2.5) in the ANSWER BOOK.

1.2.1 The clerk of work is appointed by the …

1.2.2 A nominated sub-contractor is appointed by the …

1.2.3 The payment method to the contractor by the architect is by a/an…

1.2.4 Site foreman is appointed by the …

1.2.5 The…prepares the final account before the termination of the contract.

(5 × 1) (5)

1.3 Choose an item from COLUMN B that matches a word in COLUMN A. Write only the letter (A–J) next to the question number (1.3.1–1.3.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.3.1	Excavate vertical	A	grader
1.3.2	Trenching	B	tractor shovel
1.3.3	compacting	C	power float
1.3.4	Leveling	D	scotch derric
1.3.5	Loading	E	dumper
1.3.6	Cranes	F	rod vibrator
1.3.7	Excavation	G	face shovel
1.3.8	Toweling screed	H	drag line
1.3.9	Hauling	I	back actor
1.3.10	Concreting	J	sheep foot roller

(10 × 1) (10)

[20]

QUESTION 2

2.1 State the difference between *preventive maintenance* and *planned maintenance*. (4)

2.2 Name SIX systematic steps in order to achieve programming. (6)

2.3 A painter covers 50 m² in a day.

If 5 painters are employed, how many days will they need to cover 6500 m² with paint? (2)

2.4 Differentiate between *period planning* and *stage planning*. (2)
[14]

QUESTION 3

3.1 What are the THREE points a buyer of a company must remember when ordering materials? (3)

3.2 Sometimes some items of material that come on site are damaged.

What is the correct procedure to rectify the problem? (2)

3.3 What are the procedures to be followed when transferring materials or machinery from one site to other site? (4)

3.4 State FIVE points to reduce wastage on site. (5)
[14]

QUESTION 4

4.1 What are THREE things to look for on a site to determine the efficiency of the site administration? (3)

4.2 When a tender is awarded, what is the initial preparation that should be carried out before taking over the site? (4)

4.3 State FOUR factors to be considered when delegating a task? (4)
[11]

QUESTION 5

5.1 What are the post tender duties of an architect? (5)

5.2 What areas of construction on site need approval of the building inspector before commencing? (5)

5.3 State FIVE characteristics of human behaviour. (5)
[15]

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QUESTION 6

Define the following terms in construction:

6.1 Day work

6.2 Omissions

6.3 Variations

6.4 Extras

6.5 Tender appreciation

(5 × 2) **[10]**

QUESTION 7

The table gives you the length of the ordinates from the side of a building for paving.

Use middle ordinate method and calculate the area to be paved.

Distance	0	5	10	15	20	25	30	35
Ordinate	12	28	24	30	34	40	32	20

[4]

QUESTION 8

Use the ADDENDUM (attached) to tabulate the columns of the Mass Haul curve to find the accumulative volume.

Write your EXAMINATION NUMBER in the space provided, remove it from the question paper and hand it in with the ANSWER BOOK. **[12]**

TOTAL: 100

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ADDENDUM **EXAMINATION NUMBER:** | | | | | | | | | | | | | |

Write your EXAMINATION NUMBER in the space provided, remove it from the question paper and insert it in the ANSWER BOOK.

QUESTION 8

Tabulate the columns below of the Mass Haul curve to find the accumulative volume.

TABULATION OF MASS HAUL CURVE

STATION CHAINAGE	END AREA M²			AVERAGE AREA M²		VOLUME M³		ACCUMILATED VOLUME M³
		FILLING						
	CUT +		X SF=1.1	CUT +	FILL -			
0	0	0						
20	0	-34						
40	0	-22						
60	0	-12						
80	26	0						
100	36	0						
120	42	0						
140	48	0						
160	38	0						
180	24	0						
200	0	-28						
220	0	-19						
240	0	-36						

[12]

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