higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

CONSTRUCTION PLANNING
NQF LEVEL 4

(12010464)

1 December 2020 (X-paper)
09:00–12:00

This question paper consists of 7 pages and 1 addendum.

141Q1N2001

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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. Write neatly and legibly.

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QUESTION 1: INTRODUCTION TO CONSTRUCTION CONTRACTS

1.1 A contract stipulates what is expected by all parties involved in a project.

1.1.1 Define *breach of contract.* (2)

1.1.2 State FIVE terms and conditions that each party must follow to ensure there is no breach of contract. (5)

1.2 List FOUR aspects on which tenders are evaluated. (4)

1.3 Explain briefly your understanding of variations. (4)

[15]

QUESTION 2: BASIC AND COMMON AND COMMERCIAL LAW APPLICABLE TO CONSTRUCTION.

2.1 The implied terms of a contract are supported by common law and statute law.

State the difference between *common law* and *statute law.* (4)

2.2 Complete the following sentences by writing only the missing word or words next to the QUESTION NUMBER (2.2.1–2.2.3) in the ANSWER BOOK.

2.2.1 … holds back the sides of an excavation in a situation where they might otherwise collapse.

2.2.2 … is the action of making a hole or channel by digging.

2.2.3 … properties border on the building site on all sides.

(3 × 1) (3)

2.3 Give a short explanation of each of the following terminologies used in common law applicable to the construction industry.

2.3.1 Builder's Lien

2.3.2 Implied terms

2.3.3 Mutual agreement

(3 × 1) (3)

[10]

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QUESTION 3: STANDARD CONSTRUCTION CONTRACTS

3.1 The Standard Building Contract has benefits for both the client/employer and the contractor.
Explain at least THREE benefits:

3.1.1 For the contractor. (3)

3.1.2 For the client/employer. (3)

3.2 Describe the benefits of recording progress on a project. (2)

Name TWO typical items a contractor would normally record in the site diary. (2)
[10]

QUESTION 4: TENDERS AND QUOTES

4.1 List SIX types of tenders in which a contractor can obtain a contract. (6)

4.2 Name TWO of the most important documents a construction company uses to submit a tender. (2)

4.3 List THREE professionals who may help the client to put together tender documents. (3)

4.4 Discuss the implications of a bill of quantities in the tendering process as well as during the execution of the project. (4)
[15]

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QUESTION 5: QUANTITIES AND COSTING

5.1 A builder is required to erect a screen wall for a client.

Discuss all the activities he/she must perform once the material is delivered to the property. (3)

5.2 Youth Construction has obtained a tender to construct a square building with the following specifications:

Walls to be single leaf built with M140 blocks.
The external size of each of the walls are 11 meters.
The height of the superstructure walls is 2,4 meters.

The building has the following windows and doors:
Four windows size: 1200 mm x 1200 mm
Two doors size: 810 mm x 2030 mm
Use the centreline method to calculate the length of the external walls of the building.

5.2.1 Calculate the total area of all windows and doors. Round off to two decimal places. (7)

5.2.2 If 12½ blocks are required in 1 m^2, calculate the number of blocks needed to build the superstructure (external walls). Deduct all openings. Round off the final answer. (8)

5.2.3 The cost of a single block is R11,20.

Calculate the total cost of the actual blocks required for the superstructure. (2)
[20]

QUESTION 6: PLANNING AND ORGANISING CONSTRUCTION ACTIVITIES

6.1 Some of the first construction activities are very critical in the execution of building a house. The following activities will be utilised in completing the foundations of a house.

concrete footing; backfilling; surface bed; damp-proof-course; site; brickwork; excavations

Complete the following passage by filling in the missing words. Write only the missing words next to the QUESTION NUMBERS (6.1.1-6.1.7) in the ANSWER BOOK.

The first and most critical activity on the building site will be to install the profiles to set out the outline of the building for the building of the foundation brickwork. In order for the concrete footing to be cast the 6.1.1… must be completed. This will allow for the 6.1.2… to be cast. Due to shrubs and trees, clearing of the 6.1.3… must also take place in order for the surveyors to place the setting out pegs. The builder will mark out on the concrete footing the external lines of the building for the 6.1.4…. In order to waterproof the walls a course of 6.1.5… is placed on top of the brickwork in foundation prior to the commencement of the superstructure brickwork. The excavated ground of the trenches will be used for the 6.1.6…. which will be compacted to prepare for the 6.1.7…to be cast on it. (7 × 1) (7)

6.2 Rearrange the passage in QUESTION 6.1 in the correct logical and sequential order for the building of the foundations. (7)

6.3 List THREE activities the bricklayer must perform in order to build in a timber door frame. (3)

6.4 On completion of the site clearance, the builder needs to complete other activities for him/her to commence with the actual building operations.

List THREE of these activities. (3)

[20]

QUESTION 7: PROJECTIONS AND CASHFLOW

Study the income and expenses of Youth Contractors for November 2020.

Closing balance for October 2020: R122 220

Income

DATE	ITEM	AMOUNT
3 November 2020	Deposit by client	R30 000
30 November 2020	Monthly interim payment	R45 000

Expenditure

DATE	ITEM	AMOUNT
4 November 2020	Petrol card	R5 270
6 November 2020	Bank fees	R306
8 November 2020	Contractors all risk insurance	R1 888
9 November 2020	Cell phone bill	R2 300
11 November 2020	UIF and PAYE	R12 500
16 November 2020	Vehicle monthly installment	R3 990
25 November 2020	Material expenses	R32 560
30 November 2020	Wages	R56 400

Use the information above and complete the cash-flow projection for Youth Contractors for November 2020 on the attached ADDENDUM. The first row has been completed for you. **[10]**

TOTAL: 100

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

Detach the addendum and hand it in with the ANSWER BOOK.

QUESTION 7

DATE	ITEM	INCOME	EXPENSE	BALANCE
1 November 2020	Opening balance	---	---	R122 220

[10]

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