higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

# NATIONAL CERTIFICATE (VOCATIONAL)

## CONSTRUCTION PLANNING
### NQF LEVEL 4

(12010464)

**27 February 2018 (Y-Paper)**
**13:00–16:00**

**Calculators may be used.**

**This question paper consists of 7 pages and 1 addendum.**

NCV

**TIME: 3 HOURS**
**MARKS: 100**

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**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. Rule off across the page after each completed question.
5. Write neatly and legibly.

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## QUESTION 1: INTRODUCTION TO CONSTRUCTION CONTRACTS

1.1 Give ONE term for each of the following descriptions by choosing a term from the list below. Write only the term next to the question number (1.1.1–1.1.6) in the ANSWER BOOK.

| surety; guarantee; defects liability; extension of time; contractor's all-risk insurance; latent defect |
|---|

1.1.1 Accepting responsibility for the debt of another

1.1.2 Date of completion will have to be postponed

1.1.3 Correction and repair of discovered defects

1.1.4 Still has to pay even if the contract is invalid

1.1.5 Part of implied guarantee of quality

1.1.6 Covers the risk associated with a construction project

(6 × 1) (6)

1.2 A contract is only valid and reliable when presented in writing.

List FIVE points that show the importance of a written contract. (5)

1.3 Ravi is a prominent businessperson who wishes to invest his money in erecting a new hardware business. Ravi is advised to consult with professional consultants to assist in the initial phase of this project.

List any FOUR professional consultants within the construction industry who can assist Ravi. (4)

**[15]**

## QUESTION 2: BASIC COMMON AND COMMERCIAL LAW

2.1 Kay Contractors has constructed a building on an incorrect site.

Explain TWO possible actions the rightful owner of the land can take against the incorrect site construction. (2)

2.2 Explain the term *lateral support* with reference to construction planning. (2)

2.3 Copy and complete the following table to show THREE types of implied terms and examples of each type:

**TABLE OF IMPLIED TERMS AND EXAMPLES**

| Implied term | Example of implied term |
|---|---|
| | |
| | |
| | |

(3 + 3) (6)

**[10]**

## QUESTION 3: STANDARD CONSTRUCTION CONTRACTS

3.1 Give THREE reasons for recording work in progress. (3)

3.2 The Standard Conditions of Contract identifies specific general rights for the main contractor. List any FOUR of these general rights to protect the main contractor. (4)

3.3 List THREE main ways in which a contractor may participate in a contract. (3)

**[10]**

## QUESTION 4: TENDERS AND QUOTES

4.1 Give FIVE reasons why there is a risk of submitting a tender price that is too low. (5)

4.2 Name FIVE types of tenders commonly used in the construction industry. (5)

4.3 VAT is a type of consumption tax placed on a material or on a total cost of labour.

4.3.1 What does the abbreviation VAT stand for? (1)

4.3.2 To whom must VAT be paid? (1)

4.3.3 Bob the Builder has opened a new construction business. He has tendered for a project which costs R1 250 000 with materials and labour excluding VAT.

Calculate the tender price including 14% VAT. (3)

**[15]**

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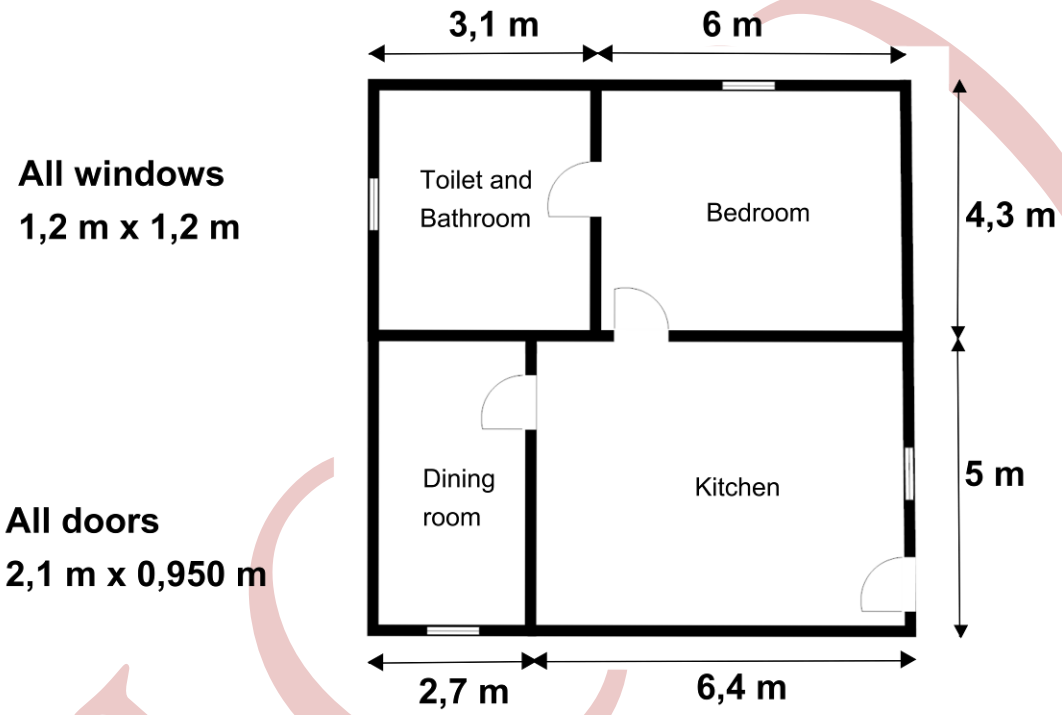
## QUESTION 5: QUANTITIES AND COSTING

5.1 When a contractor tenders for a building project, the tender price must cover all additional expenses.

List any SIX typical expenses incurred by a small contractor in building up his/her overhead costs in his/her tender. (6)

5.2 The diagram below shows the floor plan of Heidi's new four-room outhouse.




5.2.1 Calculate the total internal floor area of the above outhouse. Ignore the internal walls.
NOTE: The external walls is 220 mm thick. (3)

5.2.2 Calculate the total area of ALL FOUR windows and the external door. (4)

5.2.3 Ignore ALL openings and calculate the total number of bricks required to build the external walls only, assuming 1 $m^2$ requires 104 bricks. The height of the wall is 2,4 m. (7)
**[20]**

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## QUESTION 6: PLANNING AND ORGANISING CONSTRUCTION ACTIVITIES

6.1 Two types of construction activities need to be planned, namely critical activities and noncritical activities.

6.1.1 List FOUR activities a contractor should do in organising the site establishment. (4 x 1) (4)

6.1.2 Copy and complete the following table showing THREE examples each of critical and noncritical activities.

| **Examples of critical activities** | **Examples of noncritical activities** |
|---|---|
| | |
| | |
| | |

(3 + 3) (6)

6.2 Arrange the following list of activities for the construction of a reinforced concrete wall in a logical and progressive sequence:

- Electrical and plumbing installations
- Dismantle wall formwork
- Fix steel reinforcement for wall
- Erect wall formwork
- Setting out of wall
- Pour concrete to wall

(6 × 1) (6)

6.3 Two of the main elements in the construction of a small dwelling is the Superstructure and Roofing.

6.3.1 List any TWO activities for the superstructure.

6.3.2 List any TWO activities for the roofing.

(2 x 2) (4)

**[20]**

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## QUESTION 7: PROJECTIONS AND CASH FLOW

Study the income and expense values for Sania Contractors for September 2017.

Closing balance for August 2017: R244 440

### Income

| Date | Item | Amount |
|---|---|---|
| 02 September 2017 | Deposit by client | R60 000 |
| 30 September 2017 | Monthly interim payment | R90 000 |

### Expenditure

| Date | Item | Amount |
|---|---|---|
| 02 September 2017 | Petrol card | R10 540 |
| 03 September 2017 | Bank fees | R612 |
| 04 September 2017 | Contractor's all-risk insurance | R3 776 |
| 05 September 2017 | Cellphone bill | R4 600 |
| 06 September 2017 | UIF and PAYE | R25 000 |
| 11 September 2017 | Material expenses | R85 200 |
| 13 September 2017 | Mobile toilet rental | R4 100 |
| 25 September 2017 | Monthly vehicle instalment | R7 980 |
| 27 September 2017 | Material expenses | R65 120 |
| 30 September 2017 | Wages | R112 800 |

Use the information above to complete the cash flow projection for Sania Contractors for September 2017.

Use the attached ADDENDUM to compile the answer. The first row has been completed. **[10]**

**TOTAL: 100**

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

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

Detach and submit with the ANSWER BOOK

**QUESTION 7**

| Date | Item | Income | Expense | Balance |
|---|---|---|---|---|
| 01 September | Opening balance | --- | --- | R 244 440 |
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**[10]**

**TOTAL: 100**

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