higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

CONSTRUCTION SUPERVISION
NQF LEVEL 4

(12010474)

15 November 2022 (X-paper)
09:00–12:00

This question paper consists of 6 pages.

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

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QUESTION 1

1.1 Choose the correct personnel members from the list below for each of the following definitions used to describe the functions and responsibilities of various construction-site personnel. Write only the correct word or words next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

resident engineer; clerk of works; building/site surveyor; surveyor; general foreman; nominated sub-contractor; building-control officer; storekeeper; trades foreman; labourers; community-liaison officer; health-and-safety officer; artisan

1.1.1 This person forms the head of each one of the various working groups and delegates work to the artisans, apprentices and labourers.

1.1.2 It is his/her duty to check the material when it arrives on site, to sign the delivery note and to record the goods.

1.1.3 On large projects, where local communities are an important part of the project, he/she must be employed to maintain good relations with the people around.

1.1.4 This person must ensure that the building is on the right spot, plumb and that the floor levels are at a designed height.

1.1.5 A secondary contractor, but he/she concludes a contract with the main contractor.

1.1.6 It is his/her duty to organise all activities and to ensure the smooth running of the construction.

1.1.7 The local authority official who makes sure that building regulations are adhered to.

1.1.8 This person claims and settles interim payments and the final account with the quantity surveyor.

1.1.9 This person represents the architect on site, and monitors and certifies work and material to his/her satisfaction.

1.1.10 He/she represents the engineer on site, and monitors and certifies work and material to his/her satisfaction.

(10 × 1) (10)

1.2 List FIVE needs (in the correct sequence) as outlined in Maslow's hierarchy of needs. (5)

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1.3 Briefly define the following terms:

1.3.1 Motivation (2)

1.3.2 A self-fulfilling prophecy (3)
[20]

QUESTION 2

2.1 Outline reasons for signing off work at different stages of the project. (2)

2.2 NOSA is a leading global supplier of occupational risk management services and products that enhance the client's business performance.

List SIX programmes offered by NOSA. (6)

2.3 Explain what a*llowable tolerance* means. (2)
[10]

QUESTION 3

3.1 Accidents are preventable and can be avoided with proper safety training, precautions, and common sense.

List FIVE points that need to be taken into consideration while working on any construction site. (5)

3.2 Construction-site supervisors have an important role to play in reducing the amount of rework.

State FIVE common causes of rework. (5)
[10]

QUESTION 4

4.1 Complete the following cost-control system for Shosholoza Constructions. Write only the correct answer next to the question number (4.1.1–4.1.7) in the ANSWER BOOK.

Updated costs at week 4 (all amounts are in rands)

Activity	10	20	30	40	Total
Foundation	3 000	4 000	5 050		**(4.1.1)**
Slab work	2 000	**(4.1.2)**	1 500		4 550
Columns	500	2 000	**(4.1.3)**		3 500
Brickwork				12 000	12 000
Value to end	5 500	**(4.1.4)**	7 550	12 000	**(4.1.5)**
Actual cost	4 500	10 050	8 500	12 500	35 550
Variance	**(4.1.6)**	-3 000	-950	**(4.1.7)**	-3 450

(7)

4.2 Choose only THREE factors that can affect productivity from the list given below.

- Project and complexity of design
- Weather conditions
- Workers' availability
- Discussions with the local semi-skilled workers
- The safety audits that will be done at the end of the project
- Restructuring of the transport mode for the project
- The level of productivity will increase

(3)

4.3 Explain the role played by the following members during a meeting:

4.3.1 Chairperson

4.3.2 Secretary

(2 × 2) (4)

4.4 Briefly explain what normally happens under the following headings during any meeting:

4.4.1 Minutes of previous meeting

4.4.2 Apologies

(2 × 3) (6)

[20]

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QUESTION 5

5.1 Briefly explain the rights of employees according to the Basic Conditions of Employment Act (75 of 1997). (5)

5.2 Name FOUR categories of communication failure in the workplace. (4)

5.3 Outline SIX sources of grievances in the workplace. (6)
[15]

QUESTION 6

6.1 Give SIX examples of each of the following offences:

6.1.1 Very serious offences

6.1.2 Offences that may result in summary dismissal

(2 × 6) (12)

6.2 Give THREE reasons why conflict occurs in the workplace. (3)
[15]

QUESTION 7

Explain the following documents as used in the construction industry:

7.1 Drawing schedules

7.2 Material certificates

7.3 Attendance register

7.4 Site instructions

7.5 Delivery note

(5 × 2) **[10]**

TOTAL: 100

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