higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

DRAWING OFFICE PROCEDURES AND TECHNIQUES

NQF LEVEL 4

(First paper)

(12050724)

22 November 2024 (X-paper)
09:00–12:00

This question paper consists of 5 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
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NATIONAL CERTIFICATE (VOCATIONAL)
DRAWING OFFICE PROCEDURES AND TECHNIQUES
NQF LEVEL 4
(First paper)
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. Produce freehand drawings, sketches, and diagrams neatly, reasonably large, in proportion, fully labelled and in pencil.
5. Use only a black or blue pen.
6. Write neatly and legibly.

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QUESTION 1: PLANNING AND SCHEDULING WORKFLOW

1.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 Effective planning and scheduling are essential for managing time and resources, and achieving project objectives efficiently.

1.1.2 Inadequate planning and scheduling of workflow frequently results in missed deadlines, resource shortages, and disorganised project management.

1.1.3 Sequencing tasks is not essential in workflow planning.

1.1.4 Risk management is irrelevant in workflow planning in the drawing office; everything goes according to plan.

1.1.5 Under no circumstances, in workflow planning, should a schedule be adjusted or changed.

1.1.6 Workflow planning in a drawing office is crucial to ensure that the design projects progress efficiently and meet deadlines.

1.1.7 Risk management is crucial in a drawing office, as errors or delays in drawings can have significant consequences for construction or manufacturing projects.

1.1.8 Workflow planning is a crucial step that does not have a significant impact on project efficiency or deadlines.

1.1.9 Planning workflow and scheduling in a drawing office is pointless; projects can proceed smoothly without any prior organisation.

1.1.10 The main difference between planning and scheduling is that planning only focuses on what needs to be done, while scheduling solely addresses by whom and when the operations will be performed.

(10 × 2) (20)

1.2 List SIX reasons why communication in the drawing office is crucial. (6)

1.3 Name SEVEN common workflow steps involved in a drawing office that can vary depending on the specific project and organisation. (7)

1.4 What THREE aspects are required in the incorporation of new projects alongside ongoing or current projects in a drawing office? (3)

1.5 Name FOUR communication processes related to the monitoring of a workflow plan in a drawing office. (4)

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QUESTION 2: DRAWING OFFICE PROJECT ESTIMATES AND PLANNING

2.1 Choose a description from COLUMN B that matches a term in COLUMN A. Write only the letter (A–E) next to the question number (2.1.1–2.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
2.1.1	Risk management	A	specific boundaries, objectives, deliverables, and work that must be accomplished to complete a project.
2.1.2	Estimate time for a project	B	additional elements that contribute to the overall project.
2.1.3	Project scope	C	people, equipment, materials, and financial assets necessary to complete a project successfully.
2.1.4	Project activity	D	critical for meeting deadlines, managing resources efficiently, and delivering on stakeholders' expectations.
2.1.5	Project resources	E	assessment of potential uncertainties associated with each work element and development of mitigation plans where necessary.

(5 × 1) (5)

2.2 Name SIX activities that a project consists of, in their correct order. (6)

2.3 List FOUR cost types for a project in the drawing office, in their correct order. (4)

2.4 List FOUR key steps for preparing a budget on a building project assigned by the drawing office, in their correct order. (4)

2.5 Explain the term *unit cost* related to a project. (3)

2.6 Explain the term *fixed cost* on a project. (3)

2.7 List FIVE key elements in project estimation and scheduling that are crucial for the success of a project, in their correct order. (5)

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QUESTION 3: PROJECT MANAGEMENT IN A DRAWING OFFICE ENVIRONMENT

3.1 To understand the definition of project management, explain each of the following:

3.1.1 Measurable deliverables

3.1.2 Milestones

3.1.3 Timeframes

3.1.4 Activity

3.1.5 Time

3.1.6 Resources

(6 × 2) (12)

3.2 List THREE key support functions project teams have to carry out. (3)

3.3 Name FIVE key leadership skills required to support and manage a simple but successful project. (5)

3.4 List SIX key principles for a project in project planning. (6)

3.5 Explain the following project management processes and techniques which are applied to manage a project from implementation to completion.

3.5.1 Project planning

3.5.2 Project scheduling

(2 × 2) (4)

[30]

TOTAL: 100

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