higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

DRAWING OFFICE PROCEDURES AND TECHNIQUES

(First paper)

NQF LEVEL 4

(12050724)

28 November 2023 (X-paper)
09:00–12:00

This question paper consists of 5 pages

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
DRAWING OFFICE PROCEDURES AND TECHNIQUES
NQF LEVEL 4
PAPER 1
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 section on a new page.
5. Use only a blue or black pen.
6. Produce freehand drawings, sketches, and diagrams neatly, in proportion, fully labelled and in pencil.
7. Rule off across the page on completion of each question.
8. Clearly cross out all work you do not want to be marked.
9. All abbreviations and symbols must comply with the latest National Building Regulations and all relevant SANS (SABS) codes.
10. 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. Choose the answer and write only 'True' or 'False' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 There are reliable, valid methods and sources to obtain drawing data in collaboration with stakeholders.

1.1.2 Communication regarding specific design requirements is important on a specific project.

1.1.3 A workflow process is a set of steps or tasks that are followed to complete a specific process or job within an organization, and it defines the sequence of activities, as to who is responsible for each task, and what tools or resources are required to complete it.

1.1.4 Planning and scheduling workflow of a project is not essential to the organisational requirements.

1.1.5 Scheduling activities in a required format and time frames are required in the drawing office.

1.1.6 The WORKFLOW process schedules projects and jobs based on set priorities and the availability of resources.

1.1.7 Scheduling converts the project action plans for scope, time cost and quality into an operating timetable.

1.1.8 Planning and scheduling allow for containment within a budget.

1.1.9 The understanding and application for project schedules used by both their team and stakeholders is not appropriate.

1.1.10 The main difference between planning and scheduling is that planning determines what and how much needs to be done, while scheduling defines when the operations will be performed and by whom.

(10 × 2) (20)

1.2 List SIX drawing office procedures used in a drawing office. (6)

1.3 Name the SEVEN steps involved in creating a workflow. (7)

1.4 Name the THREE basic components required for a workflow diagram. (3)

1.5 Describe what is required to create a workflow in a drawing office. (4)

[40]

QUESTION 2 DRAWING OFFICE PROJECT ESTIMATING 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.

A simple project plan includes the terms listed below:

COLUMN A		COLUMN B	
2.1.1	Measurable deliverables	A	A project schedule is an overview of a project's deliverables laid out in chronological order.
2.1.2	Project milestones		
2.1.3	Timeframes	B	The amount of work performed that converts input to appropriate outputs.
2.1.4	Activity		
2.1.5	Resources	C	Anything or anyone that can be planned or booked to complete the task or a project.
		D	A specific point within a project's life cycle used to measure the progress towards the goal.
		E	Quantifiable, tangible, verifiable outcome, result, or item that must be produced to complete a project.

(5 × 1) (5)

2.2 Define the terms:

2.2.1 Planning. (2)
2.2.2 Estimation. (1)

2.3 What are the THREE main types of estimates used in the drawing office? (3)

2.4 Name the FOUR steps used to estimate a project plan for a building project assigned by the drawing office. (4)

2.5 Define the term *Project Estimation.* (3)

2.6 Define the term *Project Planning*. (3)

2.7 What is the importance of:

2.7.1 Project estimation. (2)
2.7.2 Scheduling. (2)

2.8 List the steps in writing a project plan. (5)

[30]

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QUESTION 3: PROJECT MANAGEMENT IN A DRAWING OFFICE ENVIRONMENT

3.1 In a drawing office, managing a project is an important part of project management. Define the following pertaining to Project Management:

3.1.1 Activity duration. (2)

3.1.2 Actual cost. (2)

3.1.3 Budget estimate. (2)

3.1.4 Client brief. (2)

3.1.5 Contract. (2)

3.1.6 Project duration. (2)

3.2 List FIVE functions of Project Management. (5)

3.3 Project Management assists the business to meet objectives within a defined time frame and budget. TRUE or FALSE. (1)

3.4 List EIGHT hard skills that a project manager should acquire. (8)

3.5 What are the FOUR main processes of project management? (4)

[30]

TOTAL: 100

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