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)

12 March 2018 (Y-Paper)
13:00–16:00

This question paper consists of 4 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. Rule off across the page after each question.
5. The drawings, sketches and diagrams must be done in pencil.
6. Freehand drawings, sketches and/or diagrams must be neat, reasonably large, in proportion and fully labelled.
7. ALL the abbreviations and symbols must comply with the latest National Building Regulations and all relevant SANS (SABS) codes.
8. Write neatly and legibly.

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QUESTION 1: PLANNING AND SCHEDULING WORKFLOW

Read the following questions carefully and write your answers in the ANSWER BOOK.

1.1 Name FOUR human aspects in the performing of tasks or managing of procedures which could lead to project failure. (8)

1.2 What is a **process**? (8)

1.3 What is a **risk**? (3)

1.4 Name the fundamental types of **risks** which are always present in a project. (8)

[27]

QUESTION 2: DRAWING OFFICE PROJECT ESTIMATING AND PLANNING

2.1 Draw a typical GANTT project chart, in good proportion and show a tabulated listing of the tasks together with a graphic display of all the key delivery stages of the project and their duration. Draw your answer in the ANSWER BOOK. (12)

2.2 The following key project headings, stages and tasks must be displayed:

Project scope Build entertainment area
Start Date Thursday 23 08 2018 and Duration 20 working days.

Sub project 1 - Build swimming pool
Task 1: Site levelling allow for 1 day
Task 2: Site levelling allow for 2 days and in an additional column list previous task i.e. **Task 1**
Task 3: Finishing of hole allow for 1 day
Task 4: Gunniting of pool allow for 1 day
Task 5: Painting of pool allow for 2 days
Task 6: Filling the pool allow for 1 day

Sub project 2 – Paving around pool
Task 7: Paving around pool allow for 3 days

Sub project 3 – Landscaping
Task 8: Landscaping of the garden allow for 3 days
Task 9: Placing and planting of the plants allow for 2 days

Sub project 4 – Lapa
Task 10: Preparation of lapa area allow for 1/2 day
Task 11: Laying of lapa floor allow for 1/2 day
Task 12: Erection of thatched structure allow for 3 days

- Total number of projected working days 20 and the project completion date is planned for Wednesday 19 09 2018. (12)

2.3 Provide graphic display of each stage, to show your understanding, by means of individual graphic boxes to display each stage within the GANTT chart. (10)

[34]

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QUESTION 3: PROJECT MANAGEMENT IN A DRAWING OFFICE ENVIRONMENT

Make freehand drawings of each the following and draw your answers in the ANSWER BOOK:

3.1 A flow chart explaining FOUR distinct stages of project management. (12)

3.2 A triangular presentation, in good proportion, illustrating the impact of risks and issues on the project milestone schedule. (11)

3.3 A flow chart in good proportion illustrating the advantages of project management tools and techniques. (16)
[39]

TOTAL: 100

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