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higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

CARPENTRY AND ROOF WORK

NQF LEVEL 4

(12030504)

12 March 2018 (Y-Paper)
(13:00–16:00)

This question paper consists of 5 pages.

NCV

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. Write neatly and legibly.

NCV

QUESTION 1

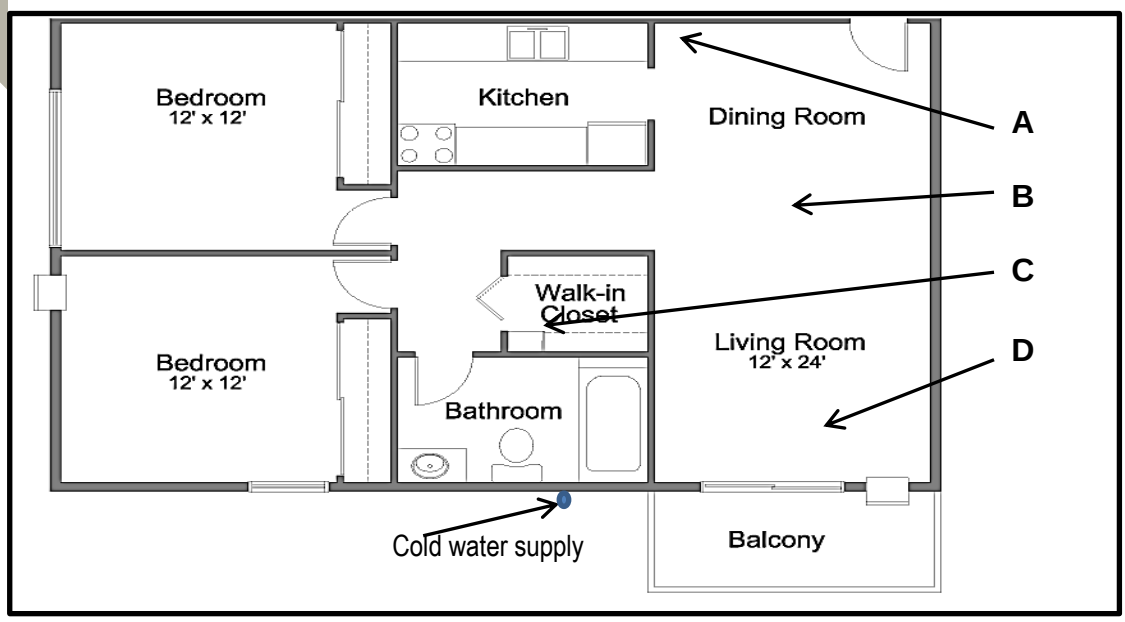
1.1 Choose a term in COLUMN A that matches a description in COLUMN B. Write only the letter (A–E) next to the question number (1.1.1–1.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.1.1	Beams that support a floor	A	internal wall
1.1.2	Supports the downward force of the geyser instead of putting more stress on the trusses	B	truss
1.1.3	Frame supporting the roof covering or ridge	C	drip tray
1.1.4	Collects any leak or overflow of water from a geyser	D	tie-beam
1.1.5	Bottom horizontal member of a roof truss	E	joist

(5 × 1) (5)

1.2 FIGURE 1 below shows the plan view of a two-bedroom house with a hipped roof structure. The plan is numbered on the right hand side from A–D that indicate certain areas on the plan.

If the architect decides to position the geyser in the ceiling of the house, indicate the best position where the geyser support deck should be installed by writing only the number A–D next to the question number (1.2) in the ANSWER BOOK and motivate your answer.



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(5)

FIGURE 1

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1.3 Give THREE reasons why truss members that are obstructing the process of a geyser being installed should NOT be removed. (3)

1.4 In addition to a carpenter, name TWO other artisans also involved with the installation of a geyser and give a description of their respective tasks. (2)
[15]

QUESTION 2

2.1 List THREE benefits of installing a gypsum ceiling in an office area or a house. (3)

2.2 Name THREE types of material commonly used to manufacture different types of *cornices*. (3)

2.3 Give TWO reasons why knotty pine ceilings could sag. (2)

2.4 Explain how the spacing of roof trusses that are covered with tiles can simplify the carpenter's job when installing a trapdoor. (2)

2.5 Give THREE reasons why it is best to fit a trapdoor in the passage. (3)

2.6 Give the standard size of brandering used to fix gypsum ceilings if the trusses are spaced 760 mm apart. (1)

2.7 Give TWO advantages of using fibreglass as insulation on a ceiling. (2)

2.8 What are the advantages and disadvantages of gypsum ceilings and tongue and groove (SA pine) ceilings? (8)

2.9 It is very important that the brandering, nailed to the bottom of the tie beams of the roof trusses, must be levelled before the ceiling board can be installed.

Explain how you will level the two opposite branderings that are parallel with the two walls. (6)
[30]

QUESTION 3

3.1 Give TWO advantages of a suspended timber floor in a household. (2)

3.2 Give FOUR reasons why you will rather install a concrete floor instead of a suspended timber floor. (4)

3.3 Give TWO benefits of using laminated timber as floor joists. (2)

3.4 Explain why it is important for the installation of a ventilation opening under a suspended timber floor. (2)

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3.5 The protection and preservation of the timber of a suspended timber floor is one of the most important factors that will determine the lifespan and durability of such a floor.

Give FIVE methods that you will apply to protect and preserve the timber that will extend the life span and durability of such a construction. (5)

3.6 The SANS 2001-CT1 provides very strict rules and guidelines regarding the drilling of holes for conduits in floor joist.

Discuss the rules and guidelines for the safe drilling of holes in floor joists. (5)
[20]

QUESTION 4

4.1 Make use of the headings in (4.1.1–4.1.3) and explain the procedures that you will follow to install a new hollow core door in a wooden door frame. Write only the answer next to the question number (4.1.1–4.1.3) in the ANSWER BOOK.

4.1.1 Inspect the door frame (4)

4.1.2 Mark trim and hang the door (8)

4.1.3 Fit a two-lever lock (make use of hand tools and an electric drilling machine) (6)

4.2 Explain how you will determine if a door is a left-hand door. (2)
[20]

QUESTION 5

5.1 Compare and discuss the advantages and disadvantages of melamine-covered chipboard products and solid wood products. (12)

5.2 Name THREE things that you will check before you start fixing any components of a cupboard against a wall. (3)
[15]

TOTAL: 100

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