higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

MASONRY
NQF LEVEL 4

(12020524)

22 November 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: GENERAL

Choose a description from COLUMN B that matches a term in COLUMN A. Write only the letter (A–J) next to the question number (1.1–1.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.1	Abrasion resistance	A	separation of layers from one another
1.2	Crazing	B	chemical reaction that occurs when water and cement are mixed
1.3	Curing	C	thick white liquid usually used in making rubber, paint, glue and other types of adhesives
1.4	Delamination	D	process of creating a mechanical key by scratching lines 5 mm deep into the plaster undercoat
1.5	Floating	E	ability of a material to withstand mechanical action such as rubbing, scraping or erosion
1.6	Hydration	F	adding water to mortar which is starting to stiffen
1.7	Laitance	G	development of a network of fine random cracks in screed or topping
1.8	Latex	H	process of keeping concrete under specific environmental conditions until hydration is relatively complete
1.9	Retemper	I	frothy scum of cement formed on top of concrete as a result of bleeding
1.10	Scoring	J	process of applying a surface finish to a topping or screed

(10 × 1) **[10]**

QUESTION 2: PLASTERING

2.1 Briefly explain SIX steps to check the substrate surface for plainness. (6)

2.2 List THREE methods of cleaning a wall before plastering. (3)

2.3 Which instrument or tool is used to check that the surface is level and even? (1)

2.4 List FOUR prime functions of internal plaster. (4)

2.5 Explain how one would treat the substrate if it absorbs most of the water when tested? (5)

2.6 Why do you think deviations of less than 10 mm in the thickness of the plaster coat are permissible? (2)

2.7 Explain the steps to plaster a blank wall and consider how one would score an undercoat plaster using a plaster comb or home-made tool. (8)

[29]

QUESTION 3: SCREEDS AND TOPPINGS

3.1 Name FOUR methods or ways of curing concrete in a construction industry. (4)

3.2 Explain the FOUR steps to apply a slush coat. (4)

3.3 Give ONE word/term for each of the following descriptions. Write only the word/term next to the question number (3.3.1–3.3.8) in the ANSWER BOOK

3.3.1 The process of keeping concrete under specific environmental conditions until hydration is relatively completed

3.3.2 A substance that you apply to delay the setting of the surface

3.3.3 An instrument that is used to check surface such as plastered walls and screed to be completely even and flat

3.3.4 A concrete mix that forms part of the slab.

3.3.5 The process in which cement and sand particles settle and displace excess water

3.3.6 The process of applying smooth surface finish to a topping or screed

3.3.7 The process of finishing mortar joint between bricks

3.3.8 A chemical reaction that occurs when you mix water and cement to form a bonding agent

(8 × 1) (8)

3.4 Give THREE reasons why one cannot sprinkle dry cement onto a surface to absorb bleed water. (3)

3.5 Explain FIVE steps to use a straight edge and a spirit level to measure the deviation in the level of a horizontal surface. (5)

3.6 List THREE reasons why the screed or topping should be power floated? (3)

3.7 Why is reinforcing wire mesh used in screed? (2)

3.8 What are screed battens? (1)
[30]

QUESTION 4: TILING

4.1 What is the minimum time interval between each of the following:

4.1.1 Completion of a masonry wall and plastering of the wall

4.1.2 Completion of plastering and tiling of the wall

(2 × 1) (2)

4.2 List FIVE tools that can be used for a tiling job and briefly explain what each tool is used for. (5 × 2) (10)

4.3 Discuss how one would repair a defect in plaster. (5)

4.4 Describe how to clean organic growth off the surface to be tiled. (1)

4.5 What is the difference between *porous* and *nonporous* tiles? Give an example of each. (3 + 3) (6)

4.6 List THREE factors to take into account when selecting a tile adhesive or bonding mortar. (3)

4.7 When should tile spacers be removed? (3)

4.8 Why are tile spacers used when tiling a wall or floor? (1)
[31]

TOTAL: 100

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