higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

MASONRY
NQF LEVEL 4

(12020524)

17 November 2022 (X-paper)
09:00–12:00

This question paper consists of 5 pages.

489Q1N2217

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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. Use only a blue or black pen.
5. The sketch and labelling should be clear and neat and the sketch should be done in good proportion. A pencil may be used.
6. Write neatly and legibly.

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QUESTION 1

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 If plaster is applied in a single coat, it should be 100–160 mm thick.

1.2 Curing is the process during which the mortar in the brick wall becomes wet.

1.3 The metal lathing strips should be 30 mm long, 10 mm wide and 0,5 mm thick.

1.4 Raking the joints increases the strength of the bond between the plaster and the substrate.

1.5 The materials that are needed for screeds or toppings are sand and water only.

1.6 Before laying the screed/topping, no contaminants or substances may be removed from the substrate that may prevent proper bonding.

1.7 Toppings are more expensive and harder to apply than screeds.

1.8 The minimum width of a tile panel movement joint is 5 mm.

1.9 Once you have laid the tiles and made sure they are flush, equidistant and level, the tile spacers should be removed.

1.10 When tiling a floor surface, place the tiles ‘dry’ in position over the area to be tiled.

(10 × 1) **[10]**

QUESTION 2

2.1 Draw a neat sketch to show a control joint between the walls built in stretcher bond in the following situations:

NOTE: The walls must be six courses high and the control joints should be shown.

2.1.1 Existing column and a new wall

2.1.2 Two brick walls (existing brick wall and a new brick wall)

(2 × 8) (16)

2.2 2.2.1 How long after a wall has been built, can it be plastered? (1)

2.2.2 Give a reason for the answer to QUESTION 2.2.1. (2)

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2.3 Complete the following sentences by writing only the missing word or words next to the question number (2.3.1–2.3.5) in the ANSWER BOOK.

2.3.1 The vertical joints in brickwork are …

2.3.2 The … is the surface to which the plaster bonds.

2.3.3 If the surface is too dry, it should be …

2.3.4 When a mould or formwork is used to shape wet concrete into a specific form, it is called …

2.3.5 A … is a masonry tool that is used to texturise stone and concrete.

(5 × 1) (5)

2.4 Explain how a substrate should be treated if it absorbed most of the water when it is tested. (5)

2.5 Why are deviations in the thickness of the plaster coat of less than 10 mm permissible? (1)

[30]

QUESTION 3

3.1 Give FOUR reasons why concrete should be floated. (4)

3.2 Name FOUR tests used to check the surface readiness for floating. (4)

3.3 What is a datum level/site datum? (2)

3.4 What is an intercoat/slush coat? (2)

3.5 Give THREE reasons why toppings and screeds may sometimes be power-floated. (3)

3.6 Describe how to use a straight edge and a spirit level to measure the deviation in the level of a horizontal surface. (10)

3.7 Explain the method of curing by adding water. (3)

3.8 Give TWO examples of where you should cut a joint through plaster. (2)

[30]

QUESTION 4

4.1 State ONE use of the following tools when tiling:

4.1.1 Rubber mallet

4.1.2 Chalk line

4.1.3 Tile file

4.1.4 Grout squeegee

4.1.5 Tile spacers

(5 × 2) (10)

4.2 Why should the waste outlets and drains be blocked before starting a tiling job? (2)

4.3 State and describe FOUR low-tech methods of testing a plastered wall for soundness before tiling. (4 × 2) (8)

4.4 State how organic growth can be cleaned off the surface to be tiled. (2)

4.5 4.5.1 Describe how a primer should be applied to a surface.

4.5.2 How long does a primer need to dry before laying the tiles?

(2 × 2) (4)

4.6 Briefly explain why common cement-based adhesives are unsuitable for glass mosaics. (4)

[30]

TOTAL: 100

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