higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

SURFACE ELEMENTS THEORY AND PRACTICAL N4

31 May 2021

This marking guideline consists of 8 pages.

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MARKING GUIDELINE FOR EXAMINERS

1. The marking guideline serves as a guideline to markers/examiners and is not intended to be absolute or prescriptive.

2. The answers provided in this memorandum are therefore not exhaustive and examiners/markers are requested to use their discretion when marking. Answers provided by students should also be assessed in the context of the question.

SECTION A

QUESTION 1

1.1	1.1.1	D		
	1.1.2	H		
	1.1.3	J		
	1.1.4	G		
	1.1.5	E		
	1.1.6	B		
	1.1.7	A		
	1.1.8	C		
	1.1.9	I		
	1.1.10	F		
			(10 × 2)	(20)
1.2	1.2.1	True		
	1.2.2	True		
	1.2.3	False		
	1.2.4	False		
	1.2.5	True		
	1.2.6	False		
	1.2.7	True		
	1.2.8	True		
	1.2.9	True		
	1.2.10	False		
			(10 × 2)	(20)
1.3	1.3.1	Small		
	1.3.2	Scatter rugs		
	1.3.3	Seraband		
	1.3.4	Chair rail		
	1.3.5	Hearth		
	1.3.6	Can		
	1.3.7	Red		
	1.3.8	Pigs' hair		
	1.3.9	Painted		
	1.3.10	Wider		
			(10 × 2)	(20)
				[60]

TOTAL SECTION A: 60

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SECTION B

QUESTION 2

2.1 2.1.1

- Natural materials are those found in nature,
- either as organic or as inorganic substances.
- Organic materials are those that come from plants and animals.
- Inorganic (nonliving) and mineral materials are those that exist in a natural state such as soil, clay and stone.
- Although either type might be modified, such as by cutting a tree (plant) into lumber or the stone into rectangular blocks, both are nevertheless considered natural materials.

2.1.2

- Converted materials are materials processed or manufactured into different forms,
- for example clay exists as a natural substance, but when it is fired at high temperatures
- it is converted into a new material called ceramic.
- In this converted state, clay possesses new characteristics
- and offers uses not possible with its original state.

2.1.3

- Artificial materials are created by man-made processes that produce new substances.
- Plastics are one of the best examples
- as they are artificially created from petroleum and chemicals.
- Plastics are not found in nature as a distinct product but are made from a combination of natural elements.
- Materials that are created with artificial properties and that are not found in nature are termed meta-materials.
- A lot of these are found in specialised fields such as aerospace and electrical engineering
- including smart solar power,
- management and acoustical controls. (Any 5 × 1)

(3 × 5) (15)

2.2 2.2.1

- Hardwoods come from broad-leafed or deciduous trees that lose their leaves in the winter
- such as oak, maple and walnut.
- Hardwoods generally have a finer grain
- and are used in interior trim,
- panelling surfaces,
- furniture
- and finished flooring.
- They are more expensive than softwoods
- and more difficult to shape, however, finishes are done on them more successfully.

2.2.2
- Softwoods come from evergreen or coniferous trees that keep their leaves or needles throughout the year.
- These include cedar, pine and redwood varieties.
- Softwoods are used mostly for structural members and general-purpose construction.
- They are often the hidden parts in the framework of a building or the subframe of cabinets.
- Although hardwoods in general are harder than softwoods, this terminology does not necessarily refer to the actual strengths of the wood.
- Some softwood can be harder than some hardwoods.
- The softwood of yellow pine is actually harder than the hardwoods of balsa and basswood.

(2 × 5) (10)

2.3 A Cornice
B Picture rail
C Chair rail/Dodo rail
D Dado
E Skirting (5)

2.4 **1) Preparation of wallpaper:** Preparation time for dressing wallpaper is usually a disadvantage if the wall is not bare and there is an existing layer of wallpaper on it. This is because it takes a lot of time and tedious effort to remove the existing wallpaper before hanging the new one on the wall.

2) Selection: The selection of wallpaper has improved tremendously over the years. Some new varieties mimic stone walls or paints and also vinyl with great precision and it is not easy to differentiate between the two. The easy availability of wallpaper made it a great choice for the people who wish to transform their walls. The availability of wallpaper in a wide range is a great advantage and attracts many new customers.

3) Durability: Advantage - The durability of wallpaper is unmatched as it can last over fifteen years. This makes it one of the most cost-effective methods in the long run. It can stand up to most of the kinds of wear and tear. It can handle high traffic and can withstand the wear and tear that may be caused by children. It protects the walls and is attractive at the same time.

Disadvantage - As adhesive is used to hang wallpaper on the walls, it can peel off easily in places such as bathrooms or kitchens due to high moisture and heat levels.

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4) Expense: The expense to install wallpaper varies a lot, as with paint. Wallpaper and paint are available at different prices and various types, but wallpaper can be more expensive in comparison with purchasing paint supplies which fall in the low to average spectrum of cost.

Paint can be applied by an amateur who had only received proper guidance compared to the more complicated process of hanging wallpaper. It is also time-consuming to remove existing wallpaper and this can increase the cost of installation. However, if you purchase wallpaper that is inexpensive and handle the installation yourself, you can cut a great deal of the cost.

5) Maintenance: Maintenance can make or break the success of something. Comparing the level of maintenance of wallpaper and paint, it shows that wallpaper can more easily be maintained due to its ability to withstand high pressure and a lot of traffic. In ideal conditions, it can last more than ten years, but is not a good choice where there is moisture or it is damp throughout the day, as the adhesive cannot withstand this and the wallpaper can peel off.

6) Recycling: Woodchip wallpaper is becoming very popular due to the use of recycled paper and textile papers, which make up about ninety percent of it. These are environmentally friendly and at the same time can be recycled multiple times which helps preserving the raw materials used to make it.
Due to the use of recycled materials, the cost of making woodchip wallpaper is cheap compared to normal wallpaper and it improves availability at cheaper rates for customers.

7) Environmentally friendly: Wallpaper is mostly made of materials that are environmentally friendly. The use of only natural ingredients and the technology used, have a better effect on the environment compared to paint.
The adhesive used to hang wallpaper is also made of substances that are not harmful to the walls and the environment. As a result the walls are able to breathe in air and are in a better condition throughout the years.

8) Customise: The use of wallpaper gives people the ability to customise their home. A great variety of patterns, designs and colours can be chosen from to get the best feel for one's own home. Wallpaper can give a vibrant and designer look as compared to a single colour of paint. Wallpaper can be used to add more patterns and give a vibrant look to one of the walls of a room.

9) Exposure to sunlight: One of the disadvantages of wallpaper compared to paint is that wallpaper should rather only be used to decorate walls indoors. When exposed to sunlight, the condition called burnout, is seen where wallpaper on the outer walls of the house, which receives constant sunlight, is brighter than the part that receives less sunlight. (10)

[40]

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QUESTION 3

3.1 3.1.1

- The modern Axminster-type power loom is capable of weaving high quality carpets
- with many varying colours and patterns
- and is manufactured all over the world.
- Due to their hard-wearing and durable nature,
- Axminster carpets are most frequently used in country homes, luxury hotels, global airlines and train carriages.

3.1.2

- A traditional Wilton weave carpet is a weave in which the pile threads run continuously in the carpet
- and are raised above the surface of the integral backing by means of wires or hooks.
- Wilton carpets are often cut or loop products and different yarn types can be used to produce different surface textures.
- Wilton weaving is not as versatile as Axminster for the production of patterned carpets
- due to continuous yarns that create waste yarn on the back of the carpet.

3.1.3

- Kilims are produced by tightly interweaving the warp and weft strands of the weave to produce a flat surface with no pile.
- Kilim weaves are tapestry weaves, technically weft-faced plain weaves, that is, the horizontal weft strands are pulled tightly downward so that they hide the vertical warp strands.
- When the end of a colour boundary is reached, the weft yarn is wound back from the boundary point. Thus, if the boundary of a field is a straight vertical line, a vertical slit forms between the two different colour areas where they meet. For this reason, most kilims can be classed as ‘slit woven’ textiles. The slits are sought-after by collectors, as they produce very sharp-edged designs, emphasising the geometry of the weave.
- Weaving strategies for avoiding slit formation, such as interlocking, produce a more blurred design image.
- The weft strands, which carry the visible design and colour, are almost always wool, whereas the hidden warp strands can be either wool or cotton. The warp strands are only visible at the ends, where they emerge as the fringe. This fringe is usually tied in bunches, to prevent loosening or unraveling of the weave.

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3.1.4
- Hand-knotted rugs, also referred to as oriental rugs, are made by hand on a specialised loom.
- The process of making a hand-knotted rug is incredibly taxing as the method itself requires the weaver to insert knots in the rug and tie them each by hand. However, the end result is worth it.
- A thorough amount of care is poured into the weaver's technique to preserve both the quality and aesthetics of the rugs. Because of this careful construction, hand-knotted rugs will often last for hundreds of years compared to hand-tufted and machine-made rugs.
- Hand-knotted rugs are considered a work of art, because of the thought put into the design and construction. Because hand-knotted rugs are not mass produced, each one is unique and a direct reflection of the weaver's creative design.
- These rugs are often quite valuable and can be passed down from generation to generation, an heirloom quality that is not found in many products.

3.1.5
- Bokhara is a term commonly used to describe Tekke-faced rugs.
- Tekke was a tribe from the area of Bokhara
- in Central Asia.
- The design is dominated by rows of guls
- and surrounding geometric patterns.

3.1.6
- A flokati rug is a handmade woven, shaggy, wool rug. The entire rug is wool, including the backing from which the tapered shags emerge.
- Making a flokati is a long-time tradition of the Vlachs in the Pindus mountains.
- The natural colour of flokati rugs is off-white, but they may be dyed different colours.
- After the rug is woven, it is placed in the cold water of a river to fluff the shag.
- They are still handmade in the mountains of Greece and are sought-after for American modern decor and children's rooms.

(6 × 5) (30)

3.2
- Terrazzo provides limitless colour possibilities and its design capabilities are without compare. Terrazzo comes with a great selection of aggregates and finishes to match the colour and pattern that is desired by architects, interior designers and homeowners. On the other hand, marble is limited to its natural stone colour and shade.
- Terrazzo is thinner and stronger and by far a stronger material than marble. While marble tiles can range from 3/8″ to 1/2″ in thickness, terrazzo can be made as thin as 1/4″, making it a thinner material for designs. Due to its toughness, terrazzo can last up to 75 years with negligible repairs. Marble tiles can easily chip at the edges and, once it has broken, it is almost impossible to properly repair marble flooring, therefore restoring marble floors is not cost-effective.

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- Terrazzo is more flexible and can be precast and preformed in a factory to any shape and size imaginable allowing people do design what they would like to have, while marble is inflexible regarding designs, limiting the use of the material to certain shapes.
- Terrazzo is the eco-friendly option as it is made from recycled materials and green construction material for flooring. Present-day architects and designers are using terrazzo because it is certified as an environment-friendly material. It is made mostly from recycled materials such as glass chips, pebbles, quartz and marble chips thereby helping preserve the earth's natural resources. It is also VOC-free, which helps improve the air quality around us. On the other hand, marble is a limited natural resource that requires a lot of energy to produce. Although marble is a beautiful flooring choice, terrazzo can achieve comparable results while sustaining the environment.
- Terrazzo is easier to maintain. Terrazzo is resistant to bacteria and most chemicals while marble is susceptible to staining, making it harder to clean and maintain. To remove the stains in marble flooring, it is necessary to invest in a proper cleaning solution, while terrazzo floors can be cleaned with a mop and a bucket of warm water. (10)

[40]

QUESTION 4

4.1 These are open questions. Learners should suggest indigenous materials and applications such as wood, sealed concrete, cow dung floors, etc. Markers should use their discretion when marking these questions.

4.1.1	Worktops	(10)
4.1.2	Ceiling	(5)
4.1.3	Walls	(5)
4.1.4	Floors	(5)

4.2 These are open questions. Markers should use their discretion when marking these questions. Learners should apply their knowledge regarding products, acoustics and sound absorbent materials on walls, ceiling and floors.

4.2.1	Cabinetry	(10)
4.2.2	Ceiling	(10)
4.2.3	Walls	(10)
4.2.4	Floors	(5)

[60]

TOTAL SECTION B: 140
GRAND TOTAL: 200

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