



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

DESIGN

(THEORY)

2023

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 22 pages.

SECTION A: DESIGN LITERACY**QUESTION 1: 'UNSEEN' EXAMPLES [10 marks]****ANSWER EITHER QUESTION 1.1 OR QUESTION 1.2.****1.1 (Allocate a maximum of 2 per bullet/aspect for a total of 8 marks.)**

- 1.1.1 The poster design is symmetrically **balanced**. If the poster is divided in the middle most of the shapes, decorations and colours are reflected on both sides of the design. Alternatively the poster design can be argued as somewhat asymmetrical as an extra jewellery chain is added on the right hand side, below the female's nose. The shapes in the top left and middle side of the poster are also slightly larger than on the right-hand side.

The poster makes use of a range of cool **colours** throughout and includes turquoise, powder blue, dusty green, white and strong black cloisonnistic lines around all the shapes and decoration. The polychromatic colours are applied in a flat graphic style adding to the decorative quality of the design.

A variety of stylized or simplified **shapes** are used. The shapes are decorative, ornamental or ornate. Some of the shapes are geometric and others are organic. A variety of decorative shapes are used to create the face and body of the female. The background of the design is densely covered in shapes creating a busy effect. Around the portrait a halo-arched shape is created to bring focus to the portrait and title of the poster.

Movement is created through the repetition of colours, decorative shapes and directional lines. Patterns are used in a clever way to create the focal point on the portrait. At the top left and right hand side of the poster, geometric, diamond-shaped direct your attention to the halo-arched shape and title of the poster. A zigzag pattern creates a 'border' and movement around the portrait. A dusty green colour is used to 'frame' and stop the movement and draw your attention back to the focal portrait and title.

1.1.2 (Allocate 2 marks.)

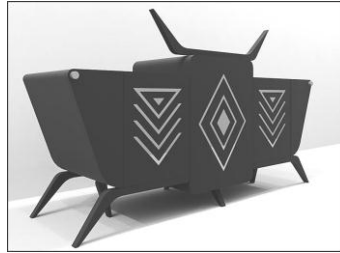
The term **eclectic** implies to borrow from a variety of sources and to combine these to create innovative designs. The patterns on the face remind one of patterns used in traditional African face painting and African mask carving. The poster could also have been influenced by Eastern jewellery decoration as seen in the jewellery chain on her nose. Eastern decorative henna patterns can also be a reference. A further eclectic reference might be Art Deco as the stylised diamond and zigzag shapes remind one of Art Deco patterns inspired by African or Aztec civilizations.

Credit any other valid statements.

Q1.1 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	1.1.1	2
	Understand, Explain, Describe		1.1.1	1
Middle order	Apply, Implement, Organise	40%	1.1.1 + 1.1.2	3 + 1
Higher order	Analyse, Compare, Interpret	30%	1.1.1	1
	Evaluate, Reflect		1.1.1	1
	Synthesise, Justify		1.1.2	1

OR

1.2 (Allocate a maximum of 2 marks for each bullet/aspect for a total of 10 marks.)



The outlines around this server are simple and clean, giving it a contemporary, machine-like feel. The slightly curved corners soften the design. The straight, angular **lines** of the decorative patterns mirror the angular lines of the legs and 'horn-like' feature in the centre to create unity. The repetition of angular lines in the pattern suggests movement, adding to the dynamic quality to the server.

The server itself is almost completely black, a neutral **colour**, which gives it strength and a bold impact. The server becomes even more eye-catching due to the use of strongly contrasting gold, linear patterns. The use of gold and black together suggests wealth and luxury.

The **form** of the server is solid and block-like giving it weight and stability. The thin, angular legs lift the server from the floor to give it an elegant feel.

The server is symmetrically **balanced** because the left-hand side is an exact mirror image of the right-hand side. This symmetrical balance adds to the sense of order and control and also draws the eye towards the centre.

The bulkiness of the server (sideboard) is **inspired** by the frame of a cow, a sacred animal in African mythology. The horn-like feature protruding above the middle section of the sideboard is also inspired by the cow linking the design with African culture and traditions. The golden-yellow chevrons, diamonds and triangles are reminiscent of the engravings made on the Ukhamba vessels (traditional clay pots used to drink beer). The simple, clean lines of the server also reflect the influence of Scandinavian design of the 1970s. The clean chevron patterns remind one of Art Deco decorations.

Credit any other valid statements.

Q1.2 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	1.2	2
	Understand, Explain, Describe			1
Middle order	Apply, Implement, Organise	40%	1.2	4
Higher order	Analyse, Compare, Interpret	30%	1.2	2
	Evaluate, Reflect			1
	Synthesise, Justify			

COMMUNICATION THROUGH DESIGN

QUESTION 2 [10 marks]

2.1 (Allocate a maximum of 2 marks per requirement for a total of 4 marks.)



The **stereotype** is that women are subservient to their husbands. ☑ The image of the woman wearing an apron and holding a pan in her hand that is smoking stereotypes women as being unable to work effectively. ☑ It also implies that women are unfocused and burn food while cooking for their husbands. ☑ The hanky implies that the woman is crying and that women are emotional and will cry over simple things like burning food. ☑ **Bias** is evident in the advert with the man portrayed to be the forgiving comforting husband who says “at least you didn't burn the beer”. ☑ This poster was made in the 1950s when women were expected to be housewives and men to be breadwinners. ☑ The man is wearing a corporate style suit which fits the stereotype that a man is the provider or the educated professional in the household. ☑

Credit any other valid statements.

2.2 (A maximum of 2 marks per bullet/aspect for a total of 6 marks)



Function

The combs are created for different textures of hair. ✓ FIGURE D serves a decorative **function** that is often used to adorn hairstyles and/or keep them in place ✓, by comparison FIGURE E which is often referred to as an Afro-pick and used to comb and or style afro hair. ✓

Material

Figure D is made out of man-made **material**, plastic, and decorated with white and blue diamantes ✓ giving it a shiny, glitzy feel, whilst FIGURE E is more earthy as it is made out of wood which is a natural biodegradable material. ✓

Form

The **form** of the decorative top of FIGURE D is curvilinear and organic and full of movement. ✓ It is also intricate, delicate and complex ✓ compared to the form of FIGURE E which is solid, simple and sturdy, yet curvilinear in appearance. ✓

Credit any other valid statements.

NOTE: A maximum of ONLY 2 marks may be allocated for tabular comparison responses. A maximum of 4 marks may be allocated where candidates present two separate comparisons. Use the cognitive grid levels as a guideline for your marking.

Q2 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	2.1	1
	Understand, Explain, Describe		2.2	2
Middle order	Apply, Implement, Organise	40%	2.1	2
			2.2	2
Higher order	Analyse, Compare, Interpret	30%	2.1	1
	Evaluate, Reflect			
	Synthesise, Justify		2.2	2

QUESTION 3 [10 marks]
(Allocate 10 marks.)



(Allocate a maximum of 2 mark per bullet/aspect for a total of 10 marks.)

3.1 A comparison of the Temple of Hephaestus with the contemporary Chamber Church

The **function** of the Roman temple was to house cult images not the worshippers. Statues of Hephaestus, the mythological god of fire and the patron goddess of Athens, Athena were housed at the centre of the structure in the cella. The Chamber church in comparison is built to accommodate the congregation and to provide a religious experience and secular touch through the experience of the space by the worshippers. The cavernous space gives the congregation a sense of peace and shelter. It also provides a frame for the ritual and sacredness desired, thereby triggering a connection between the real and spiritual dimensions.

The Temple of Hephaestus designed by Ictinus is a well- preserved Greek temple **inspired** by the Greek mythological, god of fire, metal working and craftsmanship. The Greek temple is located in an area where numerous potters' workshops and metal-working shops were situated, thus motivating the reason why the temple was dedicated to this god. The Chamber church in China designed by Büro Ziyu Zhuang is inspired by the need to create a modern version of a church. Vertical ribs were used to make up a pure form to evoke the archetype of a church. The interior design of the Chamber Church evolved from a cave and the exterior is inspired by its predecessors i.e. Roman basilicas and Christian churches. The cavernous (cave-like) interior shape of the Camber Church is inspired by the caves that were the first spaces for primitive humans to shelter from the harsh elements and dangerous animals. Their encircling form is deeply embedded as a sign of security. This early sense of security within a cave led to the development of it as a sacred place of ritual, such as the Caves of Lascaux in France.

The Roman temple of Hephaestus was **constructed** from Pentelic and Parian marble.☑ The white, semi-transparent Parian marble was used for the sculptures and the Pentelic marble was mostly used for the construction of the building.☑ The pitched roof was made from wooden beams and tiles.☑ The contemporary Chamber Church was constructed with a series of sixty aluminium fins evenly placed along the building's length to form the walls, roof and tower.☑ These steel portal frames are clad with glass reinforced gypsum.☑

On the eastern front of the temple of Hephaestus, the pediment is **decorated** with a Parian marble frieze depicting the labours of Hercules and the battle of Theseus.☑ On the west pediment, the frieze depicts the fall of Troy.☑ Originally, the temple housed the bronze statues of Athena and Hephaestus. An inscription records payments made between 421–415 BCE for two bronze statues but it does not mention the sculptor. Tradition attributes the work to Alcamenes. Both the front and back of the cella are decorated with continuous Ionic friezes.☑ Only 18 of the 68 metopes of the temple were sculptured, most of them occur on the east side of the temple; the rest were perhaps painted.☑ By contrast the Chamber Church has very few, if any decorative elements,☑ not because the architect disliked or rebelled against ornament, but in order to reveal both the interaction of original inspiration and the contemporary interpretation, as well as the core issue: divinity and ritual.☑

The **layout** of the Chamber Church is influenced by traditional Christian church architecture and has similar elements, such as the bell tower with its spire and rose window, the basilica layout and the repeating interior columns that create isles.☑ Similarly, the layout of Temple of Hephaestus copies its predecessors, the Ancient Greeks and Romans. The temple has a lengthened axis, a symmetrical layout, a stepped base and rhythmic spacing of columns that encircle the cella, which implies a basilica.☑

OR

- 3.2 **The learner is required to write an essay by comparing any contemporary building with any Classical building that they have studied by referring to the given bullets. Allocate 2 marks per bullet. Credit any valid statements.**

OR

- 3.3 **A Classical structure compared with an Indigenous Knowledge System (IKS)-building/structure:**

This marking guideline supplies an answer for the following possible comparison:

The Venda homestead is compared with the Roman Forum:

The Venda homestead and their beehive huts **function** was to provide protection for the villagers and their livestock from wild animals, the elements and their enemies. ☑ It also functioned as a manifestation of their identity. ☑The forum by contrast is a space where trading activities occurred, people gathered and it was the site of triumphal processions and elections, public speeches and gladiatorial matches.☑ It was the nucleus of commercial affairs. ☑

The Venda are an indigenous group of people who inhabit, the northern borders of South Africa's Limpopo Province, and are closely associated with the Shona of Southern Zimbabwe. **Inspired** by their pastoral way of life and the natural curvilinear landscape of Limpopo their domestic architecture originally consisted of dome shaped thatch dwellings arranged around a central core, the cattle kraal. ☑ The Roman forum was originally inspired by the Greek town square layout but later evolved to a neater more organised layout. ☑ As the city of Rome and the Roman Empire expanded the need arose for city square, this also influenced the layout of the Forum. ☑

The **construction** of the Roman Forum was a manifestation of their engineering and technological skills. The forum, built on a marsh area, used a drainage system that drained the excess water into the nearby Tiber River. ☑ The Venda beehive hut-forms use a weaving/thatching technology. ☑ The walls form part of the roof as they share a common timber structural framework. ☑

The **material** the Venda people used was timber. ☑ The conical roof, consisting of an almost solid body of Mopane wood was raised upon a central solid drum of Mopane posts placed in a circle some 4-6 metres in diameter. ☑ Thatching grass was bound into a continuous loose “skirt” which was wound onto the roof frame from the bottom upwards. ☑ The Roman invention of concrete allowed the Roman's to build imposing structures such as triumphal arches in order to display their power. ☑ The Roman buildings that lined the main street of the forum were clad in marble and the street was laid travertine blocks. ☑

The Venda villages were **located** against a hillside, a site that provided protection against their enemies as they could be seen from a distance. ☑ An uphill attack from enemies would be to the Venda homestead's advantage. The Roman Forum was situated in an area that had previously been a market and was centrally located. ☑ With the expansion of the Roman Empire a need arose for a central political and religious square. ☑

Credit must be given to any other valid statement or a comparison of a Classical and contemporary building or a comparison of a Classical and Indigenous Knowledge System(IKS)-building/structure that the candidate has studied.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. A maximum of 6 marks may be allocated where candidates present two separate essays that show a substantial comparison. Use the cognitive grid levels as a guideline for your marking.

Q3. LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	3.1, 3.2, 3.3	1
	Understand, Explain, Describe			2
Middle order	Apply, Implement, Organise	40%	3.1, 3.2, 3.3	4
Higher order	Analyse, Compare, Interpret	30%	3.1, 3.2, 3.3	1
	Evaluate, Reflect			2
	Synthesise, Justify			

TOTAL SECTION A: 30

SECTION B: DESIGN HISTORY**QUESTION 4 [30 marks]****4.1 (Allocate 20 marks in total.)**

(Allocate 10 marks for each movement. Note that only ONE MARK can be allocated for the name of a designer and product of each movement. Use the cognitive level grid as a guideline for your marking.)

This marking guideline supplies an answer for the following two possibilities:

Scandinavian design AND Deconstructivism

Candidates may choose any two movements as long as their statements are justified and relate to the quote.

Scandinavian design:

Scandinavian designers created designs in post-war Europe in a **time** when Europe needed to be rebuilt.☑ They **aimed** to do this by creating low-cost, simple, functional designs that could be mass-produced and that were at the same time aesthetically pleasing.☑ Scandinavian design promotes a 'Scandinavian way of living' and the Nordic emphasis on enjoying the domestic environment meant that many new designs were made for the place called home.☑

Scandinavian design is typical of its **time and place** in its use of machine age aspects.☑ Their emphasis on simplicity and use of smooth, unadorned surfaces and clean lines clearly show the **influence** of Modernism and the machine age.☑ Their Nordic '**place**' or climate with its long winters and few hours of sunlight inspired them to create bright, light and practical environments with clean lines.☑ Scandinavian design is also influenced by the social philosophies of the **time** and the idea of a democratic society where everything had to be made available to everyone.☑

Characteristic of Scandinavian designs is their combination of modernist, machine-like clean lines and simple geometric shapes with nature-inspired, elegant biomorphic shapes, lines and textures.☑ Ceramics and textiles are decorated with stylised designs of flowers, plants, birds and animals typical of the folk art of the Nordic '**place**'.☑ Some products emphasise natural textures and materials in their use of unpainted natural wood or plywood.☑ Others make use of plastic, chrome and aluminium, as well as new, bright chemically-produced colours celebrating the new materials of the **time**.☑

One example of Scandinavian design is the Unikko textile for Marimekko by Maija Isolla, Finland, 1964.☑



This design reflects all the typical characteristics of Scandinavian designs in its use of flat, biomorphic shapes inspired by nature. ☑ Its use of bright and light colours are also typical and show their attempt to bring light and brightness into their homes to counteract their **place** or climate that is dark and cold. ☑ The flower shapes are scattered informally over the textile adding to the light and happy feel of the design. ☑ The background is unadorned and the shapes are simple, smooth and flat in line with the minimalist tendencies of the **time**. ☑

Deconstructivism

Deconstructivist designs reflect the climate of the **time** where a move away from the cold, impersonal and authoritarian nature of Modernism is felt to be essential. ☑ Instead of the Modernists' emphasis on order, stability and harmony the Deconstructivists **aimed** to pull things apart in order to investigate the relationship between the different components. ☑ This results in designs that literally appear to be pulled apart. ☑ They also aim to explore the interaction of opposites and the fact that opposites cannot exist without each other, for example, man/woman, culture/nature, life/death leading to designs that lack unity and appear to be unstable. ☑ The Deconstructivists believe that there is an invisible relationship between opposites and that there is an underlying, invisible order. ☑

Deconstructivism is a modern, contemporary design movement taking place in a **time and place** where globalisation and quick access to various cultures, styles and beliefs has become possible. ☑ Similar to Postmodernism, Deconstructivism is eclectic, combining different design styles and approaches, resulting in varied and multi-layered designs. ☑ A major **influence** on Deconstruction is the philosopher Derrida's theory of Deconstruction which states that the interaction of opposites reflect a naturally unstable environment. ☑ The Anti-Design movement's rejection of accepted standards of beauty such as harmony, balance and order and their exploration of new boundary-breaking forms is another influence on Deconstruction. ☑

The characteristics of Deconstructivist works reflect the current **time** of multiple perspectives where nothing is certain. ☑ One **characteristic** of Deconstructivist designs is their emphasis on parts and fragments rather than on the whole, resulting in designs that appear to lack unity. ☑ The structure rejects pure function and traditional ideas of harmony, unity and stability. ☑ Line is often elliptical, curvilinear and diagonal creating designs full of movement. ☑ Displaced and distorted angular forms are often set within conflicting geometric or intercepting planes creating flat surfaces that appear to cut across each other. ☑ Space appears to have been cut with a diagonal focus. ☑ Architectural structures appear unstable. ☑ There is a sense of visual chaos provoking a feeling of uncertainty, unease, shock or disruption in the viewer. ☑ Previously acceptable conventions, methods and materials are replaced with new, often shocking methods. ☑

One example of Deconstructivist design is 'Foundation Louis Vuitton Contemporary Art and Performance Space' by Frank Gehry (France), 2014. ☑

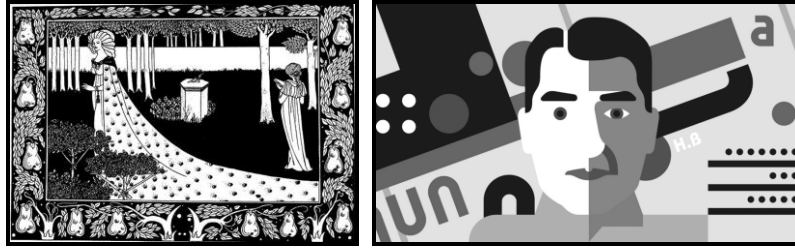


This building is a perfect example of Deconstructivist architecture which focuses on exploring the relationship between the different parts of a building. The building appears as a series of sharp, clashing angular planes of steel and glass that have been pulled apart to show what lies beneath the surface. This use of steel and glass creates a feeling of weightlessness. The planes lie in different directions in line with the Deconstructivist theory of interaction of opposites to reflect a naturally unstable environment. This adds to the feeling of movement and space within the design. The design rejects pure function and traditional ideas of harmony, unity and stability as the twelve separate 'sails' that encase the building obscure its function. Typical of its **time** the building is a rejection of the functionalism of Modernism as cold and impersonal. Instead creativity, variety and individuality is emphasised.

Credit any other valid statements.

Q4.1 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (20)
Lower order	Remember, Recall, Recognise	30%	4.1	2
	Understand, Explain, Describe			4
Middle order	Apply, Implement, Organise	40%	4.1	8
Higher order	Analyse, Compare, Interpret	30%	4.1	2
	Evaluate, Reflect			4
	Synthesise, Justify			

4.2 (Allocate a maximum of 2 marks for each bullet/aspect for a total of 10 marks.)



The Art Nouveau's **aim** of transferring the quality of handmade products to machine-made products is visible in FIGURE H as it looks like a finely carved woodcut print, but is actually a mechanical print of a pen drawing. ☑ The Bauhaus' aim of reflecting the machine-age is visible in FIGURE I's use of simple geometric shapes, smooth surfaces and clean lines. ☑

The Art Nouveau illustration's (FIGURE H) use of flowing, organic line clearly shows the **influence** of the Arts and Crafts' interest in curvilinear line and curving branches. ☑ The influence of nature is also visible in this illustration's use of organic shapes. ☑ In contrast, the geometric rectangles and pure circles in the background of the Bauhaus-style illustration (FIGURE I) reflect the influence of Cubism and the machine age. ☑ The stylised forms and flowing decorative lines and patterns of Beardsley's illustration (FIGURE H) also shows the influence of Japanese woodblock prints. ☑

The scene inside the border of the Art Nouveau illustration is asymmetrically **balanced** with more emphasis placed on the white cloak of the woman on the left-hand side, creating a dynamic composition. ☑ This use of asymmetry is typical of Art Nouveau designs. In contrast the image in the foreground of the Bauhaus-style illustration is far more symmetrical. ☑ It is placed exactly in the middle of the format and the eyebrows, eyes, mouth and chin are symmetrically placed conveying structure and order. ☑ The background of this Bauhaus-style illustration is asymmetrically balanced adding some dynamism to the work. ☑

The **line** of the illustration in FIGURE H is typical of Art Nouveau as it is stylised, clear and curvilinear and inspired by nature. ☑ The line used in the Bauhaus-style illustration (FIGURE I) is also clean and stylised but is mostly straight, angular and machine-like and does not reflect nature. ☑ The bottom pattern of pear-trees contain thin, curling whiplash lines which are also typical of Art Nouveau designs. ☑

The illustration in FIGURE H reflects the Art Nouveau love for **ornamentation**. ☑ Clumps of small leaves create curving patterns all around the border. ☑ Inside the border pattern, the repetition of vertical tree-trunks, leaves and a motif on the cloak of the woman ensure that the illustration is full of decorative detail. ☑ In contrast, the illustration in FIGURE I shows very little detail and ornamentation. ☑ Shapes are simple, flat and smooth in keeping with the machine-age love for simplicity and clarity. ☑

Credit must be given to any other valid statements.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. A maximum of 6 marks may be allocated where candidates present two separate essays that show a substantial comparison. Use the cognitive grid levels as a guideline for your marking.

Q4.2 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	4.2	2
	Understand, Explain, Describe			1
Middle order	Apply, Implement, Organise	40%	4.2	4
Higher order	Analyse, Compare, Interpret	30%	4.2	2
	Evaluate, Reflect			1
	Synthesise, Justify			

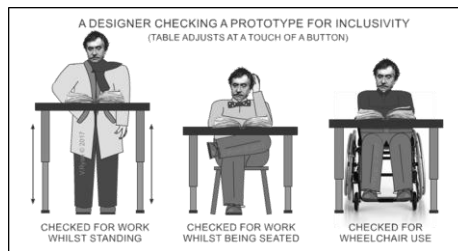
TOTAL SECTION B: 30

SECTION C: DESIGN IN A SOCIO-CULTURAL/ENVIRONMENTAL AND SUSTAINABLE CONTEXT

QUESTION 5 [20 marks]

ANSWER EITHER QUESTION 5.1 OR QUESTION 5.2.

5.1 (Allocate 20 marks in total.)



5.1.1 (Allocate 2 marks.)

Inclusive design includes people with various challenges to life. The table design in FIGURE J, is an inclusive design because the designer has addressed ease of use for all people. The table is designed to adapt to all heights by using a button. This can be done standing, sitting or in a wheelchair.

Credit any valid answers

5.1.2 (Allocate 2 marks.)

Elevator doors that communicate verbally, inform people who have impaired sight that the door is opening and closing.

Motion sensor doors open as a person approaches. There is no need to reach for a door handle that could be too high for people in a wheelchair or too low for a very tall person.

Credit any valid answers

5.1.3 Allocate 16 marks in total.

(Allocate 8 marks per case study.)

(Allocate 1 mark for the name of the designer and the name of design product.)

ONE CONTEMPORARY SOUTH AFRICAN SOCIO-CULTURAL DESIGNER/DESIGN GROUP:

Name of the designer/design group and design product that addresses sociocultural issue/s:

Woza Moya, Dream for Africa Chair, 2010.



Aims, materials and techniques used on the design

Woza Moya is an income generating design group formed in 2009 supported by the Hillcrest Aids Centre Trust, which aims to empower rural women in KwaZulu-Natal through training to reduce poverty. ☑ Woza Moya enables women to be able to earn an income and feed their families, thus encouraging financial independence and reducing child hunger. ☑ Woza Moya advocates for the celebration of local craftsmanship, hope and dignity. ☑ The Dream for Africa Chair is constructed from embroidered patches of 150 crafters over a period of 8 weeks. ☑ The embroidered patches were sewn together and upholstered onto a wingback style chair that has wings in the shape of the map of Africa protruding on either side. ☑

A discussion of how the work addresses sociocultural concerns

The chair was intended to create a legacy of hope and restore dignity to the women by using their creativity to earn an income after it was discovered that patients and crafters at the centre had stopped dreaming due to personal hardships. ☑ The chair is travelling South Africa and abroad so that local and international crafters and leaders can be photographed in the chair while talking about their dreams. ☑ The more people talk about their dreams in the chair the more meaning and exposure it gets. ☑

ONE CONTEMPORARY INTERNATIONAL SOCIO-CULTURAL DESIGNER/DESIGN GROUP:



Name of the designer/design group and design product that addresses sociocultural issue/s:

Elemental Architectural Firm, Quinta Monroy 2001-2004. ☑

Aims, materials and techniques used on the design

Meagre government housing subsidies coupled with poor economies and unemployment is a stumbling block to land and home ownership. Many families resort to squatting or living in squalor. ☑ Until 2003 the Quinta Monroy informal settlement was an ad-hoc crowded arrangement of self-built housing constructed from discarded waste from the local port. The informal settlement was built on rented land and when the landowner died, threats of eviction lead the community to approach the Elemental Architectural firm. ☑ Elemental's directors described the informal settlement as “unsightly and unhealthy”. The community of Quinta Monroy complained about crime and the risk of fire due to the density of the settlement. ☑ Elemental aimed for scalability, buildability and marketability, addressing the negative aspects of Chile's previous subsidised housing projects. ☑ Elemental's solution created opportunities for the residents to realise their housing aspirations by conceptualising two types of houses. One on the ground level, and another above, both of which could be expanded into allocated spaces as resident's resources permitted. ☑ The houses conceptualised by Elemental were contractor driven and were mass-produced to create 13 blocks containing 93 houses around four courtyards. ☑

A discussion of how the work addresses sociocultural concerns

The project was conceived as a “collective building” rather than individual dwellings thus promoting the idea of community living. The low rise repeatable blocks were porous and designed so that residents could supplement the formally built structure with self-built extensions. ☑ In this way residents still had control with regard to personalising their spaces. ☑ By 2019, all but one of the original 93 households had extended their houses making residents co-participants in their own housing construction. ☑

Credit any other valid statements.

Q5.1 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (20)
Lower order	Remember, Recall, Recognise	30%	5.1.1 + 5.1.3	1 + 1
	Understand, Explain, Describe		5.1.2 + 5.1.3 5.1.3	1 + 1 2
Middle order	Apply, Implement, Organise	40%	5.1.1 5.1.2 5.1.3	1 1 6
Higher order	Analyse, Compare, Interpret	30%	5.1.3	2
	Evaluate, Reflect		5.1.3	4
	Synthesise, Justify			

5.2

5.2.1 (Allocate 10 marks.)

Name of ONE traditional craft/ indigenous cultural community that produced the traditional craft.

AMANDEBELE WALL PAINTINGS ✓

The materials, methods and processes used to create the traditional craft

The wall paintings created by the women were their secret code to their people, disguised to anyone but the amaNdebele. ✓

The pink patterns are one of the most important aspects in their communication through painting. They are usually repeated throughout their design with only a very slight variation and different colour choice. ✓ The geometric patterns and shape are first drawn with the black outline and later filled in with colour. ✓ The patterns are grouped together throughout the walls in terms of their basic design structure. ✓ They needed tools for the large geometric shapes of flat colour and small brushes for the very small areas, outlines, and sacks. ✓ The advancement of tools has allowed faster and more complex designs throughout the amaNdebele's homes. ✓

The patterns were painted with the women's fingers. ✓ The original paint on the house was a limestone whitewash. ✓ The colours added to make the paintings were mostly natural pigments consisting of browns, blacks, and ochers. ✓ Most of the patterns were of a V shape and a very simple triangle placed on a large shape of colour. ✓ The patterns, earth tones, directions, and sizes were more important than the present-day vivid and bright colours. ✓ There are five main colours represented: red and dark red, yellow to gold, a sky blue, green, and sometimes pink. ✓ The colours give an intensified symbolic meaning to the amaNdebele. ✓

The social value and function of the craft in its traditional context.

The amaNdebele tribe originally in the early 18th century lived in grass huts. ✓ They began using mud-walled houses in the mid-18th century when these symbols were created on their houses and walls. ✓ These expressive symbols were used for communication between sub-groups of the amaNdebele people. ✓ They stood for their continuity and cultural resistance to their circumstances. ✓

During the 19th century, the Ndzundza amaNdebele people of South Africa created their own tradition and style of house painting. ✓ This style of painting started in 1883 after the amaNdebele warriors and landowners went to war with the neighbouring Boers. ✓ The loss of the war brought on a harsh life and horrible punishments for the amaNdebele. Through those hard times expressive symbols were generated by the suffering people expressing their grief. ✓ These symbols were the beginning of the Ndebele art form.

The vibrant symbols and expressions portray communications of personal prayers, self-identification, values, emotions, and marriage. ✓ Sometimes the male initiation, known as *ukuwela* was a reason for repainting, but the ritual was not expressed. ✓

The tradition and style of house painting is passed down in the families from generation to generation by the mothers. ✓ A well-painted home shows the female of the household is a good wife and mother. ✓ She is responsible for the painting of the outside gates, front walls, side walls, and usually the interior of her home. ✓

Credit any other valid statements.

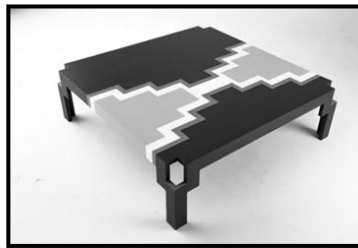
5.2.2 (Allocate 10 marks.)

**Allocate 1 mark for the name of the designer and the name of the product.
Name of designer/group and of ONE design produced**

Pinda Furniture by Siyanda Mbele ☑

A detailed description of how the designer/design group adapts and applies the traditional technique to create a contemporary design. Refer to the above-mentioned design to support your statements.

Discuss the design's sociocultural contribution



Emerging Creatives alumnus **Siyanda Mbele** is the founder of Pinda Furniture and Interior Design, a company driven by producing functional products with a high quality African aesthetic. ☑ The Durban-based designer recently unveiled two new products: the Nandini coffee table and the Ndalo nesting table.

The Nandini coffee table is adorned with the Ndebele patterns usually found in Ndebele architecture. ☑ A key focus in the range is the step pyramid, which is inspired by internationally acclaimed amaNdebele artist Esther Mahlangu's ☑ "istegetsane" zigzag style is greatly referenced in the bold and colourful coffee table. ☑ The geometric Ndebele patterns are not only applied on the surface of the table, but are also incorporated in the form and shape of the table. ☑ The side table is made from laser etched birch plywood and steel legs which come in a variety of colours that can easily be mixed or swapped around. ☑ The unique shape of the legs allows for the tables to be easily stacked on top of one another to create open shelving or a display unit. ☑

Mbele wishes to impart his knowledge to young, aspiring designers. He hopes that through his work he will encourage African designers to be more comfortable in drawing inspiration from their local culture. ☑ The aim of Pinda furniture is to represent a new age in African aesthetics. ☑

Credit any other valid statements.

NO marks should be given for repetition of designer(s) and their work used in this question paper.

Q5.2 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (20)
Lower order	Remember, Recall, Recognise	30%	5.2.1 + 5.2.2	1 + 1
	Understand, Explain, Describe		5.2.1 + 5.2.2	2 + 2
Middle order	Apply, Implement, Organise	40%	5.2.1 + 5.2.2	4 + 4
Higher order	Analyse, Compare, Interpret	30%	5.2.1 + 5.2.2	2 + 2
	Evaluate, Reflect		5.2.1 + 5.2.2	1 + 1
	Synthesise, Justify			

QUESTION 6 [20 marks]**6.1 (Allocate 20 marks in total.)****6.1.1 (Allocate 4 marks.)**

Humans spend more time indoors than outside, often in built-up urban areas.☑ Taking this fact into account, Heatherwick Studio has shifted their focus to 'biophilia' – the theory that humans need to be close to nature to remain healthy on a biological, physical, psychological and sociological level.☑ The studio's main aim is to green our cities.☑ This is visible in this skyscraper in Singapore's use of a vertical garden to create a 'City in a Garden'.☑ To enhance his 'greener vision', Thomas Heatherwick recreates a natural environment by using hand-picked tropical plants and trees found in Singapore's famous Botanic Gardens.☑ Foliage removes the carbon dioxide from the environment and replaces it with oxygen.☑

The skyscraper design also uses natural forms in its structure to link the building with nature.☑ The most attractive 'green' feature of the building is its array of huge, rounded, voluptuous balconies, which relates to bio-mimicry and biomorphic images of organic blooms, petal-forms, massive mushrooms and giant cacti.☑ The balconies are huge to capture healthy sunlight.☑ Natural light helps to merge the inside and outside using elements of controlled airflow and temperature.☑ Natural light also helps to save on energy.☑

A 'green vision' building creates a calming and restorative environment.☑ There is clear evidence that the opening up of buildings to nature and fusing the interior with the exterior improves the physical health of guests and workers as that it lowers blood pressure, improves the immune response, strengthens mental thinking and helps to keep people concentrated, positive and energised.☑ It has also been found that people engage on a stronger social and working level in an environment that is full of nature.☑

- 6.2 (Allocate 16 marks in total.)
(Allocate 8 marks per case study.)
(Allocate 1 mark for the name of the designer and the name of design product.)

EXAMPLE OF A SOUTH AFRICAN CONTEMPORARY ENVIRONMENTAL DESIGNER:



Name of the designer/design group and ONE of their designs

Living Tebogo School in Johannesburg, South Africa by BASEhabitat (a project planned and built at the Kunstuniversität Linz in Austria).☑

Materials and techniques:

This school building is primarily influenced by earth architecture.☑ The main construction materials are concrete blocks, earth, clay, straw, timber and grass mats.☑ The primary mud construction of the two new buildings added to the existing four-building complex is wattle and daub, where horizontal wood slats (wattle) are filled with a combination of wet soil, straw and other binding additives (daub).☑



In one of the buildings this construction is expressed by leaving the horizontal wood slats exposed.☑ Variation in the spacing of these slats, the variation in colour of the daub (owing to the natural variation of the local soils and the different mixtures) adds interest to the facades.☑ The other building is finished smoothly, with a couple interesting additions: a wall with recycled glass bottles inserted on end in a random pattern and handprints of the students and locals.☑

A wood and plastic trellis is the last component of the small project. It links the new buildings and one of the existing buildings.☑ Through the location of the former in relation to the latter a paved open space is created.☑

Function:

Marked by a tree, this space becomes a social gathering for the school, and serves both the students and the local community.☑ It is a space that links old and new.☑ The architectural design is also a visually exciting and aesthetically pleasing structure.☑

An analysis of the design and explain how it reduces its carbon footprint to achieve a 'greener vision'.

The landscape design creatively camouflages the lodge and helps to make it appear part of the environment.☑ The dominant buildings in the area are shacks built of sheet metal, corrugated iron or car parts, meaning "in summer it can become unbearably hot in these shacks (up to 45°C), while during winter nights it can be noticeably cold (to 2°C)."☑ These extremes are primarily due to the poor insulating qualities of these cheap and readily available materials.☑

By applying earthen or mud construction techniques in this building project, temperature fluctuations are reduced by 9°C, making Living Tebogo School a comfortable learning environment ☑ for the handicapped children in the Orange Farm township of Johannesburg - an area marked by poverty, AIDS and unemployment. This building project incorporates the local community in the earth construction process,☑ saves money on imported materials, and improves indoor temperature conditions without the need for fans or air-conditioning and thus saving on electricity.☑ In making use of natural sustainable materials, a green living space was created and carbon footprints minimised.☑ The design incorporates verandas and cantilevered roofs to optimise the use of natural light and shade.☑

EXAMPLE OF AN INTERNATIONAL DESIGNER**Name of the designer/design group and ONE of their designs:**

Toyota Lexus cardboard car: full-scale origami IS Sport Sedan by Moyo Fujamade (LaserCut Works, 3D model maker Scales and Models, and DS Smith packaging company), (UK), 2015.☑

Materials and techniques:

The design team made use of contemporary precision 3D cardboard laser cutting techniques to create the vehicle and it took the design teams three months to put the design together.☑ **Lexus**, the luxury vehicle division of the Japanese car brand Toyota, employed specialist companies Scales & Models for the overall design of this one-of-a-kind automobile and LaserCut Works for the crafting techniques needed to make this ambitious project a reality.☑

By creating and utilising a 3D model of the sedan, the small collaborative team of five could divide the entire car into a series of individual parts. The wheels, the seating, the dashboard and main body were all constructed one by one, from the ground up. The result is a perfect cardboard representation (and an obvious celebration) of Lexus' own IS Luxury Sport Sedan. The 5-man team of professional modellers, designers and crafters poured their efforts into three months of intensive automobile building. The process was surprisingly hands-on, with every layer having to be fixed together by hand using water-based glue and left to set for 10 minutes after each application. The team created a production line. There was a lot of repetition in the process and they had to work with military precision, just like the teams that make the real Lexus cars. By digitally rendering each of these parts into 10 mm-thick cardboard slices, 2-dimensional profiles were created for the precise laser cutting that would eventually produce the 1 700 fully recyclable cardboard sheets needed to build a childhood fantasy.

Function:

The project grew beyond being a stationary cardboard car when the five man team added functioning doors, steel and aluminium frame, headlights, rolling wheels, a fitted replica interior and an electric motor. It is, in fact, a fully functioning cardboard automobile that can be driven in a completely controlled environment! The car is very slow.

Analyse the above design, explaining how it addresses sustainable/environmental issues:

The Lexus cardboard car is no doubt a masterful achievement of craftsmanship. The use of recycled cardboard makes this car fully sustainable. This is the first 3D electric cardboard prototype. By using an electric engine and cardboard for modelling prototypes, Toyota shows their green vision for future luxury sport sedan cars. A small production team and 3D laser-cut technique can be a green option for the future.

Credit any other valid statements.

Q6 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (20)
Lower order	Remember, Recall, Recognise	30%	6.1.1 + 6.2	1 + 2
	Understand, Explain, Describe		6.2	3
Middle order	Apply, Implement, Organise	40%	6.1.1 + 6.2	2 + 6
Higher order	Analyse, Compare, Interpret	30%	6.1	1
	Evaluate, Reflect		6.2	3
	Synthesise, Justify		6.2	2

TOTAL SECTION C: 40
GRAND TOTAL: 100