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Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

DESIGN

(THEORY)

2022

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 19 pages.

SECTION A: DESIGN LITERACY**QUESTION 1: 'UNSEEN' EXAMPLES [10 marks]**

Candidates answer EITHER QUESTION 1.1 OR QUESTION 1.2.

1.1 (Allocate a maximum of 2 marks for each bullet/aspect)

The repeated squares have various geometric **shapes** superimposed on each square in the background creating a clean, geometric grid pattern that contrasts with the organic figure in the foreground.☑ Organic shapes on the shirt/t-shirt are repeated to create a rhythmic curvilinear pattern that contrasts with the colourful pattern of the background.☑

The background consists of vibrant primary, secondary and complementary **colours** creating a striking design.☑ The image of the man is strong and eye-catching due to it consisting only of the dark neutral colours of black and grey.☑ The contrast of the white spectacle on the dark figure highlights the silhouette of the man.☑

The image of the man is a **focal point** because it is very large and placed in the centre.☑ It also attracts the attention of the viewer first because its darkness creates such a strong contrast with the colourful, bright background.☑ The bright coloured spectacle accentuates the silhouette as a focal point.☑

Different geometric shapes of triangles, circles, squares and rectangles are used within the squares in the background of the design, giving the wallpaper a dynamic **pattern**.☑ Lively, flat organic shapes were used on the grey top/t-shirt of the silhouette as a pattern that contrasts well with the geometric background of mathematical shapes.☑

Unity is created by the arrangement of squares that form one colourful background.☑ The motifs within the squares are laid haphazardly, yet create unity by the use of colour.☑

Credit any other valid statements.

Q1.1 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	1.1	2
	Understand, Explain, Describe			1
Middle order	Apply, Implement, Organise	40%	1.1	4
Higher order	Analyse, Compare, Interpret	30%	1.1	2
	Evaluate, Reflect			1
	Synthesise, Justify			

OR

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



The **forms** of the two ceramic vases are organic and full of movement reminding one of the forms of egrets (water birds).☑ These forms also resemble the natural organic forms of fruits or vegetables with twigs hanging on a tree.☑

The tactile **texture** on the vases is created by three-dimensional forms.☑ The bottom sections consist of separate, petal-like layers which contrast with the upper section that resemble the smooth, silky skin of the stem.☑ The colour and texture of the clay reminds one of delicate bone or shell. ☑

The petal-like patterns on the lower section of the vase create create irregular, wavy **lines** that create rhythm.☑ Fine thin lines create a circular motion on the necks of the vases.☑

The vases are asymmetrically **balanced** as their forms are not mathematically perfect spheres or ovals.☑ The upper section of the vases is curved in an unpredictable direction that emphasises the asymmetrical nature of the design.☑

The vases have a decorative **function**, they are bespoke vases that are used for display and to enhance an interior space.☑ The vases can also be used to display a few flowers or tree twigs.☑

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			

QUESTION 2: COMMUNICATION THROUGH DESIGN [10 marks]



2.1 (Allocate 4 marks)

- 2.1.1 A fish☑ moves steadily and confidently in water, therefore a fish symbolises movement, independence and abundance of food. ☑

Bread /cheese☑ symbolises food which speaks to stability and nutrition for people. Additionally, bread/cheese can symbolise farming and working the land for food. ☑ Bread is also a staple food in the reducing of hunger.☑

- 2.1.2 The hands reaching out for food are black and different shades of brown,☑ indicating that hunger and poverty only affects black society. ☑ The food portrayed also identifies with certain cultural/race groups.☑

2.2 (Allocate 6 marks)



The Baba typeface consists of geometric, precise, straight and faceted **lines** that contrast against curvilinear ones creating a clean look.☑ In comparison, the Gothic Manuscript typeface is far more busy, as it is composed of many thick, straight, rigid vertical and diagonal lines created by the downward strokes and the serifs, as well as by thinner diagonal strokes crossing the letters.☑ The **shapes** of the Baba typeface combines angular, geometric triangles and diamonds with circular shapes, creating an unusual and dynamic typeface☑ whereas, the Gothic Manuscript typeface is composed of just angular shapes creating a traditional style.☑ The Baba typeface appears to have been **influenced** by bold, simple geometric African shapes and patterns.☑ In contrast, the Gothic Manuscript typeface echoes influences of the calligraphy on Gothic manuscripts and the angular and solid forms of Gothic architecture.☑

NOTE: A maximum of ONLY 2 marks may be allocated for tabular comparison responses. Use cognitive levels as guidelines.

Credit any other valid statements.

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

QUESTION 3 [10 marks]**3. (Allocate a maximum of 2 marks for each bullet/aspect)**

The **site** of the Zeitz MOCAA is situated within a vibrant, upmarket shopping area called the V&A Waterfront making it accessible to South Africans and many tourists visiting the area. ✓ Whereas, the Pantheon is in the centre of a city on a flat terrain for easy access for the Roman public and currently to tourists. ✓ The Pantheon was built on the exact site of two earlier Pantheon buildings, of which both burnt down. ✓ The newly rebuilt Pantheon was dedicated to the original dictator, Marcus Agrippa as seen in the inscription on the porch façade. ✓ Similarly, the Zeitz MOCAA is housed on an important historical South African site, the old grain silos. ✓ The silos were built in 1921, in what was for almost 100 years the heart of the industrial harbour area. The original structure of 56 storage silos and the adjacent elevator building was declared a heritage site. ✓

The name, structure of the porch, and pediment decoration of the Pantheon suggests the original **function** of the building was a temple. ✓ The Pantheon was designed as a place where the emperor could make public appearances. ✓ The interior of the old grain silos were transformed to function as a museum to house the Zeitz Foundation's collection of contemporary African art ✓ and the exterior was left as is to pay homage to the original historical site. ✓ When the old grain silos were decommissioned in the 1990's, the Victoria & Alfred Waterfront approached Heatherwick studios for proposals to possibly develop the structure into a cultural institution. They wanted the new function of the building to honour the past, and to be an accessible space for all South Africans. ✓ The challenge for Heatherwick was to convert the interior of the tightly packed fifty-six concrete tubes that originally functioned as grain storage facilities, into an interior that would be suitable for displaying art in. The challenge was to retain the structure's industrial heritage while paying homage to it as an important historical South African landmark. ✓

The vaulted Zeitz MOCAA interior, was clearly **inspired** by the vaulted ceilings of Gothic cathedrals, ✓ whilst the porch of the Pantheon structure is inspired by Classical Greek architecture seen in the use of the pediment and columns, and the domed main building is much more Roman in style. ✓ The various gallery floors of the Zeitz arranged around the central atrium are connected by elevators and spiral staircases that run up the cylinders; they look as if they were inspired by "huge drill bits". ✓ The interior of the Zeitz MOCAA was inspired by the form of a single grain of corn, but this minute rounded form was scaled up to fill the 27-metre high volume. ✓ The extensive use of concrete as a material in the Zeitz MOCAA, also showcases the old silos as a modern Brutalist style inspired building. ✓

The outside walls of the silo-section of the two-part structure of the Zeitz MOCAA (a grading tower and fifty-six silo tubes) consist of the original concrete giving it an industrial, brutalist appearance. ☑ The **material** used to construct the circular building of the Pantheon is brick and concrete and the exterior was originally clad with white marble stucco to match the porch. ☑ Originally, the material used to cover the concrete exterior of the dome was sheets of bronze but these were removed in 663 CE. ☑ These strong and ostentatious materials reflected the power of the Roman emperor and empire. ☑ Both the Zeitz MOCAA and the Pantheon have light flooding their interiors from above. The Zeitz MOCAA has laminated glass on top of the silos that allow daylight in and the Pantheon has light, flooding the interior from the oculus. ☑ Being aware of the heavy nature of their building materials the Romans used lighter materials toward the top of the dome. ☑ On the lowest level travertine, the heaviest material was used, then a mixture of travertine and tufa, then tufa and brick. ☑ Only bricks were used around the drum section of the dome, and finally pumice, the lightest and most porous of materials on the ceiling of the dome. ☑ The cut edges of the concrete tubes in the interior of the Zeitz MOCAA were polished to give a mirrored finish that contrasts with the building's original rough concrete structure. ☑

Modern **technology** was used to cut and remove portions of the old silos to reveal the curved interior structure of the atrium. ☑ The dome of the Pantheon was constructed using an innovative, new **construction technique** which allowed for the dimensions of the interior height and the diameter of the dome to be the same. ☑ The span of the dome remained the largest spanned dome for many centuries and is proof of their Roman engineering expertise. ☑ The weight of the dome further reduced by five rings of twenty-eight coffers which reduce in size as they rise towards the oculus ☑

OR

COMPARISON BETWEEN A CLASSICAL BUILDING AND AN INDIGENOUS KNOWLEDGE SYSTEMS BUILDING STRUCTURE

Buildings chosen: The Pantheon and the Zulu homestead and kraal

The Pantheon is built on a significant **site** in that it was built on the exact site of two earlier Pantheon buildings, of which both burnt down. ☑ The newly rebuilt Pantheon was dedicated to the original dictator, Marcus Agrippa as seen in the inscription on the porch façade; Marcus Agrippa, son of Lucius, three-time consul, made this. ☑ The site chosen for Zulu kraals is significant. It must be situated on a slope with the main entrance at the lower end for two reasons. ☑ Firstly, when it rains, the rain will run through the kraal and clean kraal and the ground will dry quickly as no water will pool or lie within the kraal. ☑ Secondly, if the kraal was attacked by enemies they would have to fight uphill. ☑

In the case of the Classical building, the Pantheon, the **structure reflects its function**. The name, structure of the porch, and pediment decoration of the Pantheon suggests the original function of the building was a temple.☑ The Pantheon was designed as a place where the emperor could make public appearances.☑ When one views the indigenous Zulu kraal from an aerial viewpoint it becomes evident the structure of the kraal reflects its function. The aim of the layout is to provide protection for the Zulu family that live in the kraal as well as their cattle that are housed in the central core of the circular layout.☑ The traditional Zulu beehive huts known as *iQukwane*, are arranged in a circular kraal formation; the Zulu term for this is *umizi*.☑ It consists of two concentric fences of thorn tree trunks.☑ The huts made of grass thatch covering a wooden circular bent structure are located inside the outer fence and the cattle in the inner circle with a smaller enclosure for the calves.☑

The Pantheon is **inspired** by Classical Greek architecture seen in the use of the pediment and columns, and the domed main building is much more Roman in style.☑ The indigenous Zulu kraal is inspired by their traditions in servicing their cultural beliefs.☑ Hierarchy dictates the positioning of the huts.☑ The first hut is an empty dwelling dedicated to ancestors.☑ It is the first place that visitors must go to to receive the blessing of the ancestors.☑ The largest hut opposite the entrance is that of the chief's mother, the first wife is to the right of the chief's mother, and the second wife is to the left of the chief's hut, the third wife to the right of the first wife and so on. The unmarried girls live on the left of the entrance and the unmarried boys to the right.☑

The **material** used to construct the circular building of the Pantheon is brick and concrete, the exterior was originally clad with white marble stucco to match the porch. ☑. These heavy, strong and ostentatious materials successfully communicate the power and importance of the Roman emperor and empire.☑ The Zulu homestead and kraal consist out of organic, natural, earthy materials making them far more humane and in harmony with nature.☑ The floors are made from cow dung and termite clay which is mixed to a thick paste and spread to form the floor which sets rock hard and can then be polished to a mirror-like finish using a polishing stone.☑ The same material is used to construct the raised hearth near the central pole.☑ Smoke from the fire escapes out through the door or filters through the thatch.☑

Both the Pantheon and the Zulu hut are constructed on a circular base and make use of the dome as a dominant form.☑ The Zulu hut is constructed with a central sapling tree trunk which acts as main support.☑ Once the framework is constructed it is thatched with grass to form a beehive.☑ The materials and construction technology make the hut stable, warm in Winter and cool in Summer.☑ The dome of the Pantheon is constructed using an innovative, new **construction technique** which allowed for the dimensions of the interior height and the diameter of the dome to be the same.☑ The span of the dome remained the largest spanned dome for many centuries and is proof of their engineering expertise.☑ The weight of the dome further reduced by five rings of 28 coffers which reduce in size as they rise towards the oculus. ☑

Credit must be given to any other valid statements or a comparison of a Classical and contemporary building or a comparison of a Classical and Indigenous Knowledge Systems building structure that the candidate has studied.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. Use cognitive levels as guidelines.

Q3.2 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (10)
Lower order	Remember, Recall, Recognise	30%	3	1
	Understand, Explain, Describe			2
Middle order	Apply, Implement, Organise	40%	3	4
Higher order	Analyse, Compare, Interpret	30%	3	1
	Evaluate, Reflect			2
	Synthesise, Justify			

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 levels as guidelines.

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

- **MODERNISM**
- **ARTS AND CRAFTS**

MODERNISM

Modernist designs **aim** to satisfy people both functionally and aesthetically.☑ They believe that function is far more important than surface decoration.☑ They aim to create functionalist designs where form is determined by the function and where function is not concealed by surface pattern or decoration.☑ The aesthetic appeal of their designs can be found in the careful arrangement of the elements of art, i.e. line, form/shape, texture, colour, tone and space to create pleasing well-proportioned, asymmetrically balanced compositions.☑ These designs aim to express and/or inspire positive emotions of order, calm and stability.☑

Modernist (International Style) building designs are **influenced** by the Bauhaus belief in functionalism and in their reduction of forms to simple, pure geometric forms to create logical, practical and economic solutions to product design.☑ They are also influenced by De Stijl's belief in simplicity and in their belief in the purity of straight lines and geometric forms.☑ The development of new materials such as new metals and their alloys (tubular steel, aluminium and chrome), a new range of plastics such as Bakelite and polyurethane, reinforced concrete and plywood also influence Modernist designs.☑ Modernist product designs are often streamlined, showing the influence of the study of aerodynamics inspired by the forms of birds and fish.☑ Some Modernist products and textile designs show the influence of flat, imaginative, biomorphic shapes of Surrealism and others the influence of atomic structures.☑

Modernist architects **characteristically** reject all traditional architectural forms (such as decorative, curving, Classical columns, pediments, entablatures) and materials (such as stone, brick, wood and clay tiles)☑ and use only machine-like, unadorned, geometric cubes, straight vertical and horizontal lines and modern materials (such as reinforced concrete, steel and sheets of glass).☑ They believe in a modern, machine aesthetic where all unnecessary decoration is avoided.☑

Instead of using walls to do the loadbearing, Modernist buildings make use of a functional loadbearing steel skeleton structure so that walls can consist of any material.☑ Walls are often large sheets of glass called glass curtain walls emphasising lightness and weightlessness.☑ The lines of the steel structure form a repetitive rectilinear grid expressing order and unity.☑

Modernist designs such as trains, cars, fridges and kettles make use of the teardrop/streamlined form with seamless edges to convey speed reminding one of the machine.☑ These designs are modern, functional and aesthetically appealing.☑

An example of a Modernist design and designer is the ‘Barcelona Pavilion’ by Mies van der Rohe, 1929.☑



This building was both functionalist and aesthetically pleasing. It functioned as a temporary exhibition space aiming to advertise a new, progressive, democratic and modern Germany.☑ The geometric arrangement of shimmering tinted glass and marble planes under a slim line roof, supported by eight very slender chromed-steel columns, expressed beauty and elegance.☑ The use of these materials gave the building a rich, luxurious effect.☑ The structure included a rectangular pool and it was hard to tell interior from exterior.☑ The roof appeared to float over the structure, creating a building that was once substantial and ethereal.☑ The interior was minimalist consisting only of one sculpture and two of Mies van der Rohe’s new leather and chrome steel Barcelona chairs.☑

ARTS AND CRAFTS

The Arts and Crafts movement **aimed** to make people ‘happy functionally, aesthetically and emotionally’. This can be seen in their aim to create designs that are functional and well-crafted (inspired by the quality of handmade designs).☑ At the same time they aimed to create designs that were aesthetically pleasing, reflecting beautiful decorative surface patterns or natural textures (e.g. the grain of the wood that they use is left unpainted to form part of the design).☑ They believed that quality designs, beautifully made by hand and beautifully textured or patterned will serve to inspire comfort and pleasure (happiness).☑

The Arts and Crafts movement was **influenced** by nature and their use of leaves, stems, flowers, insects, birds, fish, etc. on most surface designs is proof of this. The movement was also influenced by the English Cottage style and their use of natural, organic materials like stone, slate, wood and thatch in buildings is also reflected in the buildings of Arts and Crafts designers.☑ The use of nature as subject matter and in materials resulted in soothing, ‘happy’ and aesthetically pleasing designs.☑ The Arts and Crafts designers believed that the Gothic style reflects the order and stability of good Christian morals and their interest in the Gothic period can be seen in their use of stained glass windows, the pointed arch, three and four-leaf clover motifs, bulky furniture and spires.☑ The Arts and Crafts movement was also influenced by traditional crafts like carpentry, embroidery, tapestry designs, stained glass, ceramics, etc. which convey quality workmanship as opposed to design products created during the industrial revolution.☑

The Arts and Crafts movement's **characteristic** use of controlled, curving lines to create rhythmic linear patterns, ☑ their use of flattened, stylized organic shapes reflecting nature and of a range of flat, rich, warm and cold colours reminiscent of the stained glass windows of the Gothic period ensured that the designs are decorative and aesthetically pleasing or 'happy'. ☑ Surface designs mostly reflect a symmetrical balance which stabilises the curvilinear rhythms created by the leaves, stems and flower shapes. ☑ Forms of furniture were simple and austere with minimal decoration focussing the attention on the lines of the structure, the craftsman's use of visible joins, as well as on the texture of the wood. ☑

One example of an Arts and Crafts designer and product is 'Trestle Table' by Gustave Stickley (USA), ca1910. ☑



The form of this trestle table is simple and strong, displaying its function clearly. ☑ The hand of the craftsman and a belief in form follows function is visible in the inclusion of exposed joins as part of the design. ☑ The aesthetic appeal of this trestle table lies in its use of a simple, yet beautifully-proportioned linear structure and a natural, unpainted wooden surface. ☑

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 [10 marks] (Allocate a maximum of 2 marks for each bullet/aspect.)



The Art Nouveau interior in FIGURE H shows the **influence** of nature on Art Nouveau in its use of peacocks, leaves and plants. ☑ In contrast to this use of natural imagery, the Pop interior shows the influence of the Space Age in its use of globe forms for chairs. The use of nature, curving lines and organic shapes in FIGURE H also shows the influence of Arts and Crafts on Art Nouveau, ☑ whereas the Pop interior shows the influence of the machine age in its use of geometric forms, clean lines and smooth surfaces. ☑

FIGURE H uses a wide range of luxurious pastel and muted **colours** typical of Art Nouveau, such as olive green, grey green, forest green, gold, purple, pink, yellow and pale blue to create a very, exotic and decorative design. ☑ In contrast to this the Pop interior in FIGURE I displays a much more bold colour scheme dominated by artificial bright, pure oranges, reds and mustard with white to create a clean and modern effect. ☑

The organic, curving **form** of the furniture, peacocks, leaves and plants in FIGURE H all contribute to creating a very busy, feminine effect. ☑ In contrast, the geometric spherical forms, block-like couch, cushions, side table and shelf in FIGURE I, reflect a more formal, solid and dynamic feeling as well as a purist and ordered effect. ☑

Typical of Art Nouveau is the use of natural **materials** like wood and stone as well as stained glass, pewter and fabric to create a varied, complex interior, ☑ whereas the Pop interior appears more artificial with smooth, shiny plastic surfaces dominating. ☑ Pop used synthetic new age material to appeal to the younger generation. ☑

The Art Nouveau interior does not adhere to the principle of '**Less is More**' as it is a celebration of surface pattern and detail. ☑ This can be seen in the floor (FIGURE H) which displays a decorative border, around the wooden counter and along the edges of the windows which consist of stained glass imagery, and in the use of patterning on the ceiling. ☑ In contrast to this emphasis on decoration the Pop interior (FIGURE I) is much simpler, following the principal of '**Less is More**' in its use of mostly smooth plain surfaces and minimal geometric pattern. ☑

Credit any other valid statements.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. Use cognitive levels as guidelines.

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			1

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



5.1.1 (Allocate 6 marks)

The benefits of this design is that it will prevent the spread of the virus while eating and talking without a mask on. ☒ The transparent Plex'eat hoods suspended above tables have an elegant form and create the idea of a low hanging chandelier over an elegant dining table. ☒ People can sit underneath them while eating and drinking, with the hoods potentially reducing the risk of airborne infection. The design allows for an elegant aesthetic alternative to dining and guarantees "social distancing" is followed. ☒ The plexi- glass hood might be difficult to clean after use and it will dampen a conversation as the screen blocks out the sound. ☒ It would also be difficult for the waiter to serve the food without knocking the shield as the space seems to be a very cramped. ☒ It will also be difficult to stand up from the table without bumping against the shield. ☒

5.1.2 Allocate 14 marks in total, 7 marks per case study.

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

ONE CONTEMPORARY SOUTH AFRICAN DESIGNER/DESIGN GROUP

Name of a designer/design group/design company and one design product:
I RUN JHB Afrofuturistic sportswear by Wandile Leeu & Neo Selemela (JHB, South Africa), 2020. ☒

Sociocultural concerns addressed in his/her/their aims and/or design processes

Both fashion designers Wandile Leeu and Neo Selemela focussed on capturing the vibrant and energetic sociocultural 'soul' of the City of Gold. ☒ Their brand of street wear clothing aims to celebrate the city of JHB and is rooted in the bold, busy, 'go-getter, dream chasing' attitude of the people of Johannesburg. ☒ These two fashion designers have successfully created a modern, contemporary identity that South Africans can be proud of inspired by traditional amaZulu, amaSwati, amaSepedi, TshiVenda and Kente textile patterns. ☒

Discuss the design example/product of the above designer/ design group to explain how the design addresses the sociocultural issue/s

I RUN JHB Afrofuturistic sportswear designed by Wandile ‘King’ Leeu and Neo ‘Gabhadiya’ Selemela is colourful and eye-catching using traditional indigenous fabrics combined with bright tracksuit material to create modern, street-inspired casual wear. ✓ By fusing modern fabrics with traditional African prints and patterns the clothing brand honours and promotes indigenous design, and at the same time promotes an African identity. ✓

By creating an ‘interwoven’ mixture of various traditional, ethnic African and modern fashion styles, they have created a unique, eclectic fashion brand for Johannesburg. ✓

ONE INTERNATIONAL DESIGNER/DESIGN GROUP



Name of a designer/design group/design company and one design product:
Aviointeriors proposes post-COVID-19 JANUS seats (Italy), 2020. ✓

Sociocultural concerns addressed in his/her/their aims and/or design processes

This design addresses the danger that the COVID virus poses to the health of society ✓ by protecting passengers in aeroplanes from being infected by fellow passengers that are seated in close proximity to them. ✓

Discuss the design example/product of the above designer/ design group to explain how the design addresses the sociocultural issue

JANUS-seats is a new futuristic aeroplane and airport seat concept which is a radical departure from previous seat designs and Aviointeriors. ✓ Currently, there is no medical evidence that the seating concept protects passengers from the COVID-19 virus. Passengers would still be required to wear masks and the fact that there are more hard surfaces implies that there are more areas to disinfect. ✓

In this design the direction of the seats alternates so that one seat faces forward and the seat next to it faces backward. ✓ The seats have a double-S-shaped wraparound screen shell at head-level. ✓ These shells are manufactured from transparent thermoplastic which is fireproof. ✓ The use of transparent thermoplastic ensures that passengers can still have eye contact with flight attendants and travellers. ✓

To ensure access to aisle seats for disabled passengers, wheelchair users and people with reduced mobility, Aviointeriors intends to make the shield portion on the aisle seat foldable or sliding. ✓

Credit any other valid statements.

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

5.2



5.2.1 (Allocate 2 marks)

Practising an indigenous craft creates employment for many African women ✓ and enables mothers and grandmothers to work from home where they could look after young children at the same time, securing their safety. ✓ The practicing of traditional crafts helps to create, affirm and promote a cultural identity. ✓ It could elevate the social status of the practitioner and give her/him power within a rural community. ✓ It also keeps the craft alive for future generations. ✓

5.2.2 (Allocate 8 marks)

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

Traditional fibres used in basketry reflect the local habitat. They include illala palm, sisal leaves and fibre, raffia (African bamboo), fibrous tree and plant roots such as *makege*, vines, leaves (banana and fan palm), cane, bark wood and papyrus. ✓ Usually, two types of vegetative fibre used to make a coiled basket; one for the inner coil and one for the wrapping of the coils. ✓ For example, in Uganda and Rwanda, baskets are woven from raffia or papyrus wrapped and stitched around a coil of banana leaf stems. Generally, the core coils are from grass. ✓

When an extra strong basket is required, the design can include leather or bark strips, woven or sewn onto the walls or base. ✓ Sometimes, baskets have decorative rims made from shells, beads or seeds. To make baskets waterproof, clay or mud or resins and fat are smeared on the interior and exterior. ✓

Dyes to create different colours come from natural sources like roots, barks, fruit and berries, leaves, clay, dung or various combinations of the above. ✓ Patterning can be in the form of decorative bands or geometric shapes; lozenges, triangles, diamonds, star or flower shapes, zigzags, swirls or chequerboard motifs. ✓

Patterns and use of different contrasting colours of the fibre highlights the beauty of the baskets.☑ When the fibres of the baskets are left in its natural state they produce interesting textural effects.☑ Before the actual weaving can take place, the fibre has to be prepared.☑ This is especially so if it needs to be dyed as well as made flexible.☑ Sisal fibre, for example, requires stripping, cleaning and spinning by hand; a lengthy process, which can take up to 16 hours for a medium size basket.☑ Weaving techniques include coiling, plaiting, twining, crossing or chequerboard.☑

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

Basketry has an important social, spiritual or functional role in African communities.☑ Historically, baskets were used for agricultural practices, for example for sifting grains, collecting and carrying crops as well as carrying produce to markets.☑ Other functions include to contain and store, to serve of food and beverages and to filter beer during its production process.☑ When a basket is important, the design also becomes more complex and often decorated with a stepped lid or strengthened with leather or bark to ensure longevity of use.☑



The size, form, functional and decorative features of the basket determine the specific use. A basket can be circular, oval, square or conical or occasionally even chambered. It can have an open bowl, be a tray, exhibit a foot, a lid, or a handle.☑



A brief discussion of ONE example, as well as the name of the indigenous cultural community

The IMBENGÉ is a small, saucer shaped bowl traditionally woven with Ilala palm and grass fibres.☑ A modern version is woven by men from telephone wire, resulting in a bright kaleidoscope of colour and pattern and is very collectable.☑ The imbenge is used as a platter for serving dried foodstuffs, as well as being a lid or cover for the clay beer pots.☑ When not in use it is hung up on the wall of the hut as part of the décor.☑ The patterns on the imbenge are often geometric in character.☑

Credit any other valid statements.

5.2.3 (Allocate 10 marks)



Name the designer/design group and ONE design product:

Bisate Contemporary Rwandan Eco-Lodge designed by Nicholas Plewman Architects (Atelier 55), 2018. ✓

Aims of the designer/design group

The architects wanted to create an eco-lodge that blended into the steep hillside of the eroded volcanic cone that overlooks the Bisoke Volcano. ✓ The word 'bisate' means 'pieces' in Kinyarwanda and was chosen to reflect how the volcanic cone in which the eco-lodge sits was once whole but is now worn away by natural erosion. ✓ The developers and architects were keen to ensure minimal environmental impact during the building of the eco-lodge. ✓ The main aim of the architects is to uphold the principles of sustainable **ecotourism** as Bisate is next to Rwanda's Volcanoes National Park; an area famous for its endangered mountain gorillas and a major tourist attraction. ✓

Influences on the designer/design group

This architectural design is influenced by the beehive shaped thatched structures of the King's Palace at Nyanza, home to Rwanda's last kings and now an important cultural and tourist site for the country. ✓ For the construction of the building, both the influence of traditional Rwandan building techniques and materials and the influence of Modernist materials can be seen. ✓ The building is an eclectic mix of concrete, steel, timber, synthetic thatch, volcanic rock, bamboo, reed and papyrus. ✓ References to Imigongo art, in striking black and white panels accentuated with deep red is another distinctive feature. ✓ This graphic art form dates back to the 19th century royalties who used it to decorate their walls. ✓

Analyse how the contemporary design product is an adaptation and continuation of indigenous craft techniques

Both the exterior and interior are a celebration of the past and present of Rwanda's indigenous craft techniques and rich cultural heritage. ✓ For the interior, Teta Isibo sourced locally produced interior decor products, as well as furnishings that reflect Rwandan design. ✓ The company's inspiration drawn from everyday Rwandan life elements is seen in the inclusion of cowhides that represent the way of life of local villagers and a milk jug motif called *Ibyansi*, which is used on several objects. ✓ The inclusion of traditional craft techniques and contemporary avant-garde designs create a chic eclectic eco-lodge, without sacrificing on sustainability or sociocultural importance. ✓

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	2
	Understand, Explain, Describe		5.2.2 + 5.2.3	2 + 2
Middle order	Apply, Implement, Organise	40%	5.2.1 5.2.2 + 5.2.3	2 3 + 3
Higher order	Analyse, Compare, Interpret	30%	5.2.2 + 5.2.3	2 + 2
	Evaluate, Reflect		5.2.2 + 5.2.3	1 + 1
	Synthesise, Justify			

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

Nike Space Hippiie 4 footwear consists of 85–90% recycled waste and is made entirely from scrap materials from the factory floor; including plastic bottles, t-shirts, and post-industrial scraps. ☒ This implies that almost no energy (e.g. transport, machines. electricity) has been used to produce the materials for the shoes. ☒ Since the size of a carbon footprint depends on the energy used the carbon of this shoe will be very little i.e. less energy useage results in a smaller footprint. ☒ This reflects the 'zero carbon' aim of the company. ☒

Because the company is producing the sneaker from waste from the factory floor they are not discarding the waste into the environment also reflecting their move towards 'zero waste'. ☒ The manufactured lightweight sole is a combination of recycled Zoomx Foam, Crater Foam and ground rubber. ☒ The combination of these waste materials creates the characteristic speckled look. ☒ Nike decided to move away from the double shoebox in favour of a single box made of 90% recycled materials to achieve a zero carbon footprint and zero waste.

6.1.2 (Allocate 2 marks)

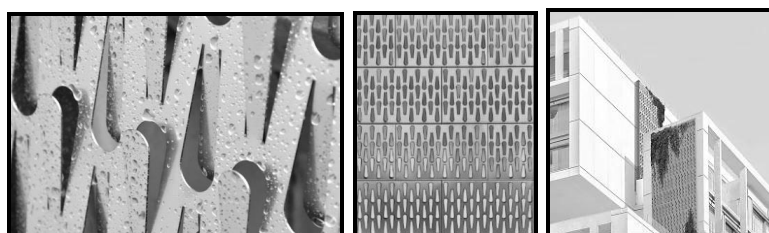
Plastic bags, straws, cling wrap, fishnets, nylon gut are not biodegradable and take hundreds of years to decompose. ☒ Most of these materials end-up in land dumps and the sea. Innocent land and sea animals consume plastic or become entangled in plastic bags, netting or nylon gut. ☒ These animals suffer excruciating pain or suffocate. ☒ Plastic particles can leak into our water and food. ☒ Recently, scientists have found plastic particles in the ice glaciers in the North Pole. ☒

6.2 Allocate 14 marks in total, 7 marks per case study.

Allocate 1 mark for the name of the designer and the name of design product

LOCAL ENVIRONMENTAL DESIGN:

The Aquatecture panel by Shaakira Jassat, founder of Studio Sway (Netherland), 2019. ☒



Aims and/or influences:

After observing the severe drought conditions in Cape Town and Pretoria and living in fear of Day Zero – the day when taps will run dry, Shaakira Jassat, founder of Studio Sway, was inspired to create a solution for urban areas.☑

Aquatecture is a rain-harvesting panel intended for the city with limited space for JoJo rainwater tanks.☑

Her rain-harvesting panels targets urban developments and enables people in drought-stricken cities to catch their own water.☑ Her design would allow urban residents to sustain their own needs by channelling rainwater into the building's grey-water system, where it can be recycled along with the wastewater from sinks, washing machines and other appliances.☑

Analyse the design providing an explaining how it addresses sustainable/environmental issues:

Designer Shaakira Jassat has created a rain-catcher that is slim enough to fit on the outside of buildings in dense urban environments.☑ The Aquatecture panel is designed to collect rainwater as it trickles over the openings in the structure before pumping it into a building's grey-water system. While the primary purpose of the panels is to catch rainwater, the Aquatecture panel, if hooked up to other equipment, could potentially also pull water from the atmosphere via condensation.☑ The panels are made of stainless steel, chosen for its durability and rust resistance.☑ They are studded with perforations that consist of a slim, rounded funnel form.☑

Aquatecture rain harvesting panels will be tested at the Granger Bay parking garage over the next two years, and all water collected will be used at the Oranjezicht City Farm Market. The V&A Waterfront will be among the first companies in South Africa to test this highly innovative new design in rainwater harvesting technology.☑ Manufactured from aluminium, the panels are resistant to corrosion and can be installed on the exterior of buildings or they can be used as freestanding units in areas with more open spaces.☑ “Saving water is now an integral part of every development and of our overall sustainability programme. In addition to rainwater harvesting, the Aquatecture panels are also compact and visually appealing so they will integrate well into most urban architectures.”☑

ONE INTERNATIONAL DESIGNER/DESIGN GROUP**Name of designer/design group/company and ONE design product:**

‘SUNplace solar cooking table’ by Francesca Lanzavecchia and Hunn Wai (Italy), 2015.☑

Aims and/or influences:

SUNplace table aims to conserve energy in that it allows you to cook with magnified sunlight on a cast iron surface.☑ The design concept of the solar cooking table is to bring people socially together around a table to cook together. It is a great way to socialise, entertain and party.☑ The Italian designer Francesca Lanzavecchia and Hunn Wai from Singapore intend the SUNplace set to function as a cross between a braai or barbecue and *teppanyaki* – a type of flat grill used in Japanese cuisine.☑ Eastern cooking methods like Chinese hot pots, and Korean barbecues also influence this design.☑ The provision of protective gloves, eyewear, aprons and elongated utensils make sure that young children can participate without being burnt.☑ The SUNplace solar cooking table is suitable for the discerning client, looking for a unique, stylish, and a different outdoor or indoor social experience.☑

Analyse the design providing an explaining how it addresses sustainable/environmental issues:

This innovative 'novelty' green grill is for the whole family or a party of friends who can all participate in the cooking experience.☑ This cooking method has no impact on the environment.☑ The cooking utensils are also solar-powered and converts sunbeams into energy.☑ The design of these cooking utensils are geometric, elegant and simplified.☑ The top of the table and chairs are made of natural solid oakwood and the triangular base of the table and chairs, which tapers towards the top, is finished in powder-coated steel contributing to the general look of luxury and elegance.☑

The base of the table and chairs repeat the cast iron colour scheme to create a unified design.☑ The removable grill plate nestles into the surface, positioned beneath the lens that supports a metal stem. Made from lightweight sustainable and environmental-friendly aluminium the braai can be used indoors or outdoors.☑ The SUNplace table is easy to use and clean ensuring minimal maintenance cost.☑

There are a variety of health benefits, e.g., no smoke inhalation, less fat used in the cooking process, etc ☑

Credit any other valid statements.

Q6 LEVEL	COGNITIVE SKILLS	WEIGHTINGS	QUESTIONS	MARKS (20)
Lower order	Remember, Recall, Recognise	30%	6.1.1	1
	Understand, Explain, Describe		6.1.2 + 6.2	1 + 4
Middle order	Apply, Implement, Organise	40%	6.1.1 6.1.2 + 6.2	1 1 + 6
Higher order	Analyse, Compare, Interpret	30%	6.1.1 +	2 + 1
	Evaluate, Reflect		6.2	2
	Synthesise, Justify		6.2	2

TOTAL SECTION C: 40
GRAND TOTAL: 100