basic education

SENIOR CERTIFICATE EXAMINATIONS/
NATIONAL SENIOR CERTIFICATE EXAMINATIONS

DESIGN

(THEORY)

2021

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 22 pages.

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The building is fragmented and distorted. It is made up of sharp, clashing angles, skewed shapes and intercepting planes giving it a very dynamic quality very typical of Deconstructivism. ; The use of glass gives it a weightless quality suggesting that is floating in the air. ;

Credit must be given to any other valid statements.

Q.4.1 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	4.1	2
	Understand, Explain, Describe, Classify		4.1	4
Middle Order	Apply, Implement, Organise	40%	4.1	8
Higher Order	Analyse, Compare, Interpret	30%	4.1	2
	Evaluate, Reflect		4.1	1
	Create, Synthesise, Justify		4.1	3

4.2 **(Allocate 10 marks)**

The unusual tubular lime-green clock in FIGURE I shows the **influence** of the Pop era's love for simple, child-like forms and bright colours. ; It also shows the influence of the Anti-Design movement who turned their back on traditional design, making use of bright, gaudy colours and distorted forms. ; The Postmodernist clock in FIGURE J is eclectic in style, also showing the influence of multiple movements. ; Its legs remind one of classical Greek columns, whilst the simple, block-like casing of the clock and the simple circle of the pendulum is quite modernist in style. ;

Pop design emphasised 'the new', **aiming** to restyle products and to use new technology based on scientific research. ; This can be seen in the use of a new, non-traditional form for the clock, as well as in the use of injection-moulded plastic, a new technology. ; In contrast, Postmodern designers aimed to link modern elements with aspects from past styles - this can be seen in the use of classical Doric-style columns and wood, a traditional material, in FIGURE J. ; Both designs aim to appeal to individual taste and use quirky, humorous, unexpected forms to achieve this. ;

The bright, flat **colour** of the clock in FIGURE I is typical of Pop design, expressing light-heartedness and fun, ; whereas the clock in FIGURE J makes use of earthy brown, gold and charcoal expressing a more subdued, formal feeling not typical of Postmodernism. ; Postmodernist designs usually include some brightly coloured elements to make them more appealing to the general public. ;

The circular and diagonal outlines that dominate the clock in FIGURE I exudes energy and fun, reflecting Pop Design's move away from the rigid, rectilinear style of modernism. ; In contrast, the vertical and horizontal **lines** that dominate FIGURE J convey the stability and order typical of classical designs. ; The severity of the block-like top is softened by the curved edges of the columns and the curved bottom edge of the square casing because the Postmodernists also aim to move away from the rectilinear style of modernism. ;

FIGURE I makes use of injection-moulded plastic, celebrating a favourite new inorganic **material** of the Pop era. ; FIGURE J uses plywood for the top and an ebony wood-coating for the columns. Although plywood is a 20th century invention it appears natural and reminds one of traditional organic building materials. ;

Credit must be given to any other valid statements.

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

Q.4.2 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise, Name	30%	4.2	2
	Understand, Explain, Describe, Classify		4.2	1
Middle Order	Apply, Implement, Organise	40%	4.2	4
Higher Order	Analyse, Compare, Interpret	30%	4.2	1
	Evaluate, Reflect, Judge		4.2	
	Create, Synthesise, Justify		4.2	2

TOTAL SECTION B: 30

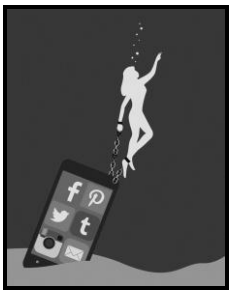
SECTION C: DESIGN IN A SOCIOCULTURAL/ENVIRONMENTAL AND SUSTAINABLE CONTEXT

QUESTION 5 [20 marks]

ANSWER EITHER QUESTION 5.1 OR QUESTION 5.2.

5.1 **(Allocate 20 marks in total)**

5.1.1 **(Allocate 4 marks)**



The designer of the poster in FIGURE K clearly communicates how our addiction to our cell phones and social media weighs us down and could eventually drown us. ; The **image** of the cell phone with the social media icons, Facebook, Pinterest, Twitter, Internet, etc., is much larger than the figure, emphasising the power of social media. ; The cuffed hand and ankle cuffs and the air bubbles from the female all allude to the fact that she is trapped by, and drowning under the weight of social media. ; The cell phone is embedded in the sand showing how tough it is to escape from the addiction to our cell phone. ; The uncomplicated **layout** of the poster is divided into 2 sections; water and sand. ; The silhouetted, simplified female shape is placed in the top right-hand section of the composition. The stylised, flat and schematically drawn cell phone is embedded in the seabed. ; Both the sea water and seabed is presented as a flat area. A diagonal line is formed by placement of the female and cell phone – all helping to strengthen the downward diagonal movement in the composition. ; The horizontal line created by the seabed contrasts with the dynamic diagonal line and this contrast reinforces the stifling effect of the embedded cell phone. ;

Credit any other valid statements.

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

ONE CONTEMPORARY SOUTH AFRICAN DESIGNER/DESIGN GROUP:

Suzette Hendricks, plastic sleeping mats. ;

The designer **aims** to create sleeping mats and blankets for the homeless to keep warm. ; Also, the designer aimed to repurpose plastic bags and reduce plastic waste. ; The **technique** used by the designer involved the cutting of plastic bags into strips to make balls of plastic, which were thereafter crocheted to make the mats. ; Plastic as a **material** provides good insulation from the cold and is also waterproof. ; Plastic is also fairly inexpensive and easily accessible ; therefore the mat is economical ; to make. The use of plastic prevents people from stealing these mats from the homeless. ;

The designer addresses the social concerns of homelessness. ; Homeless people have no way of protecting themselves from the weather conditions such as rain, wind and cold. ; The designer created the plastic sleeping mats to provide comfort and a surface to sleep on for homeless people. ;

ONE CONTEMPORARY INTERNATIONAL DESIGNER/DESIGN GROUP:

Dalian Nationalities University: The Bike Washing Machine or BiWa. ;

The product combines the function of a washing machine with that of a stationary exercising bicycle. The designer **aims** to keep you fit by exercising on a stationary bike ; and at the same time performing the mundane chore of washing laundry. ; The **technique** used by the product requires that the pedals of the bike spin and rotate the front wheel, which is a clothing drum. ; The extra energy created through the workout powers the display screen and monitors the wash cycle process ; . The designer used different materials for different components like plastic as the body and pedals, ; steel for the washing drum and rubber that serves as band to run the pulley between the pedals and the drum. ; Each material used is for the benefit of the product to work as a unit and be durable. ;

In this product the designer addresses the **sociocultural concern** of lack of time to exercise and wash laundry. ; Modern day living is so high paced that often people do not have enough time in a day to exercise that often results in obesity. ; Also, with the high cost of food, fuel and other living expenses, most people cannot afford domestic help or the use of laundromats. ; The designer addresses the socio-cultural concern of small living spaces by designing the exercising bicycle as one component product with multiple functions. ;

Credit any other valid statements.

Q.5.1 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	5.1.1	2
	Understand, Explain, Describe, Classify		5.1.2	4
Middle Order	Apply, Implement, Organise	40%	5.1.1 5.1.2	2 6
Higher Order	Analyse, Compare, Interpret	30%	5.1.2	3
	Evaluate, Reflect, Judge		5.1.2	1
	Create, Synthesise, Justify		5.1.2	2

OR

5.2 **Allocate 20 marks in total**

5.2.1 **(Allocate 2 marks)**

The unusual chairs in FIGURE L belong to the category of both craft and/ or design. It is a craft as it is produced using a traditional hand weaving basket technique. The chairs are woven from reeds which is a traditional craft material. ; The chair does not copy an already existing design but is unique, original and fuses traditional craft and contemporary design to form a product that will function well in a contemporary interior. ;

(Allocate 8 marks)

Traditional Xhosa female beaded dresses date back to pre-colonial times. The **origins** of the beaded Xhosa female skirt; the Isikhakha or Umbhaco stems from a rich tradition of beaded ceremonial dresses which have formed a major part of a cultural aesthetic expression in Southern Africa for nearly 200 years. ;

During the late eighteenth and early nineteenth century's glass beads were first imported in small numbers to Africa from Europe. They were exclusively the property of the ruling elite and symbolized their important status. By the end of the nineteenth century, Africa was the world's largest consumer of beads imported from Europe. Subsequently, the number and type of adornments fashioned from beads increased significantly, as beadwork was still considered a women's craft. ;

Within the Xhosa culture, the **functional and social role** of the Isikhakha or Umbhaco forms part of a complex dress code that is informed by a person's social standing. While beaded garments and accessories were used differently by various ethnic groups, in each society they played a key role in communicating aspects of the wearer's identity. ; Social and marital status, number of children, and a person's home region and ethnic subgroup were, and often still are, communicated through items of dress. ; Traditionally, women's clothing and accessories show the different stages of life. Traditional dresses are still valued and worn as a sign of respect to the ancestors. In earlier times, missionaries insisted that converts to Christianity abandon indigenous fashions. Those who still wore traditional clothes could easily be distinguished from the converts. The Xhosa term for traditionalist was amaQaba, the "Red People" because they continued to apply red ochre to their clothes and bodies. ;

Elaborate beaded necklaces called ithumbu, were worn around the neck with beaded bracelets and anklets.

The iqhiya or headscarf was traditionally worn by married women and to complete the outfit, embroidered capes or blankets were worn around the shoulders. The scarf is supposed to conceal the female figure as well as safeguard her fertility, while the 'doek' is a sign of respect towards the elders; a new bride cannot talk to the elders bare-headed. ;

Iqhiya or headscarf or 'doek'

5.2.2 Additionally, the colour of a dress is determined by the Xhosa sub-group, the specific region, and the social status of a person. The traditional Xhosa wedding attire, the Umakoti like in other African and Western culture, is usually the centre of attraction during a wedding ceremony. What the bride looks like is of particular importance to the days' proceedings as she has to display traditional symbolism and look exquisite to outshine every other woman in the ceremony. ;

Depending on the specific region and Xhosa subgroup, the **materials, techniques** and colouration of the textiles varied a great deal. The isikhakha or imibhaco is an elegant textile skirt that could incorporate beadwork and appliquéd strips. ; Delicate beaded appliqué designs alternating with buttons were added between the rows. The skirt was worn with a beaded belt and beaded tassels that extend to the ground. The combination of elaborate beadwork with vividly hued textiles and other materials like buttons and tassels yielded both a rich, tactile surface and a beautiful effect. ; Beaded works such as this were only truly complete when seen during ceremonial dances. ;

An example is the beaded **Xhosa female skirt**; the **Isikhakha or Umbhaco** which consists of woven cotton, wool, glass beads, shell buttons and sometimes ochre pigment. ; Xhosa people commonly wear a plain white or red cape. Occasionally a white cotton blanket was coloured with ochre, producing a rich reddish-brown fabric that was then cut and sewn into three sections to form the skirt. ;

The skirt featured five rows of black appliquéd strips that followed the curve of the hem and was bordered by rows of delicate white and dark blue beads and narrow black appliqué strips. ;

(Allocate 10 marks)

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

Thandazani Nofingxana is a contemporary South African fashion designer who created the fashion range Rich is Black and Vice Versa, inspired by the Xhosa culture and heritage. ; He uses colour as a homage to the traditional colourful Xhosa dress, Umbatu. ; Most of his designs are strongly inspired by basket weaving as he considers this to be the common cultural link between many traditional African cultures. ; His fashion designs take inspiration from the **Isikhakha or Umbhaco**, a beaded Xhosa female skirt that is traditionally made of woven cotton, wool, glass beads, shell buttons and ochre pigment-dyed cotton. ; His inspiration is reflected in his use of symbolic shield and geometric patterns, bold earthy colours and repeated stripes on hemlines. ; His latest range, SITHI ABA highlights the diversity within African culture. With this range he cemented the use of red, orange and yellow as his signature colours. ;

In his Rich is Black and Vice Versa fashion range, he deals with social issues including cultural stereotypes, xenophobia, race, emotions and insecurities. ; Thandazani Nofingxana says: “for quite some time I have been insecure about my dark complexion, obviously being pressured by societal perception on what beauty and perfection is, which is usually not in the favour of the darker tones”. ; He was able to turn his frustration and anxiety into fashion. Under his company Chap, he releases stylish pieces that are inspired by his lived experiences. Behind his bold prints there is a degree of introspection and strife. ;

Thandazani Nofingxana found that because stereotypes are still prevalent, his sexuality was often questioned because of his interest in fashion over a traditional career such as law or medicine. ;

Q.5.2 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	5.2.2 5.2.3	2 2
	Understand, Explain, Describe, Classify		5.2.2 5.2.3	1 1
Middle Order	Apply, Implement, Organise	40%	5.2.2 5.2.3	4 4
Higher Order	Analyse, Compare, Interpret	30%	5.2.1	2
	Evaluate, Reflect		5.2.2	1
	Create, Synthesise, Justify		5.2.3	3

QUESTION 6 [20 marks]

6.1 **(Allocate 4 marks)**

This tiny house is equipped with everything to be completely off the municipal power grid as it is running on renewable energies. ; The home is built from wood, which is organic, biodegradable and does not release toxins, ; has solar power, ; captures rain water, ; and even generates gas via a biogas digester. ; The biogas digester works to turn household food scraps and garden waste into useable gas, which is then used for cooking and heating water for the home. ; The design of the home is light and open plan, with kitchen, bathroom, lounge, office and storage stairs which lead into the loft. ; The tiny house has reduced its carbon footprint and will use less electricity for heating. ; The bathroom is a composting toilet that has no impact to the environment. ;

Credit any other valid statements.

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 the product.

EXAMPLE OF A SOUTH AFRICAN DESIGNER

Name of the designer/design group and his/her/their design product(s)
Milky Rose Designs: Lampshade. ;

A discussion of the designer/design group's aims, design processes, techniques and materials
The **aim** of the designer is to eradicate pollution by collecting plastic water and ginger bottles to make her handmade home ware creations. ; The **design process** of manufacturing their products begins with acquiring mundane plastic materials and then to decide on a suitable product for it. ; The designer through a combination of jewellery and interior design **techniques** fuses hand embroidery with **materials** like silver and recycled plastic. ;

These materials are cleaned and then cut to size to fit the intended product. ; After the shape of product has been established, embroidery is added to beautify the plain plastic. ; In some instances, silver and silicone is added to create texture. ;

A discussion of the design, explaining why it is environmentally responsible
Plastic pollution is a huge problem for the environment, the land and the sea, primarily because it is non-biodegradable. ; Milky Rose Designs strives to clean the environment to reduce toxic material that affects planet earth. ; Recycling, reusing and upcycling plastic waste helps in rejuvenating the environment. ;

EXAMPLE OF AN INTERNATIONAL DESIGNER

Name of the designer/design group and his/her/their design product(s)
Nader Khalili working with Cal-Earth; An example of this is the Superadobe homes. ;

The aims, design processes, techniques and materials used by the above designer/design group

Nader Khalili's main **aim** is to create cost effective housing construction. ; Khalili, with the help of Cal-Earth focuses on an area that will be particularly hard hit by climate change and teaches people all over the world how to build disaster-proof earth homes using tools of war such as barbed wire and sandbags ; . The Superadobe homes are incredibly easy and fast to build, durable, affordable and offer protection against the elements, which is another aim. ;

Part of the **design process** included extensive research into vernacular earth building methods in Iran and after a few prototypes developed the sandbag or 'super adobe' system. ; The basic construction **technique** involves filling bags with earth or sand and laying or stacking them in a circular pattern or plan. ; The stacked circular layers near the top form a dome. ;

Materials include barbed wire which is laid in between to prevent the soil/sandbags from shifting and to provide earthquake resistance. ; Soil/sandbags and barbed wire – are used for peaceful ends, integrating traditional earth architecture with contemporary global safety requirements. ;

A discussion of the design, explaining why it is environmentally responsible

The **design** plan for the Superadobe homes includes arches, domes and vaults where a single or double storey home can be created. Most of the homes consist of three rooms: one major domed space with some additional spaces for cooking and sanitary facilities. ; Ovens and animal shelters can also be made to provide a more permanent status. While these homes refer to the ancient mud brick architecture of the Middle East, the use of barbed wire refers to the transportable structures used by nomadic cultures. ;

The aerodynamic form resists hurricanes: the use of soil/sandbags aids flood resistance and the earth itself provides insulation and fireproofing. ;

The Superadobe homes are entirely sustainable as the materials are sourced on site and built by hand. Men and women, old and young help to fill the bags with soil/sand. ; The Superadobe home system is particularly suitable for providing temporary shelter because it is cheap and allows buildings to be built fast with minimum training. The homes/shelters focus on the economic empowerment of people by participating in the building of their own homes and communities. ; On the outside of the building a water catchment area is created to supply the home with water. The outside mud layer the house makes it cool in the summer and warm in the winter. ; The added earth tube and pop-up skylight provides sufficient light and thus saves on electricity. ;

Khalili created a housing design that is flexible in size and structure. Clusters can be varied and applied to different ecosystems to produce settlements that are suitable for a variety of individuals or groups with differing social and environmental needs. ;

With the use of human hands, natural materials and clever design characteristics, Nader Khalili's Superadobe homes are 100% **environmentally** sustainable and eco-friendly. ;

Credit any other valid statements.

Q.6 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	6.1	1
	Understand, Explain, Describe, Classify		6.2	5
Middle Order	Apply, Implement, Organise	40%	6.1 6.2	2 6
Higher Order	Analyse, Compare, Interpret	30%	6.1	1
	Evaluate, Reflect, Judge		6.2	1
	Create, Synthesise, Justify		6.2	4

TOTAL SECTION C: 40
GRAND TOTAL: 100

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