



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

DESIGN P1

(THEORY)

FEBRUARY/MARCH 2017

MEMORANDUM

MARKS: 100

This memorandum consists of 25 pages.

SECTION A: DESIGN LITERACY**'UNSEEN' EXAMPLES****ANSWER EITHER QUESTION 1.1 OR QUESTION 1.2.****QUESTION 1 [10 Marks]****1.1 (Allocate a maximum of two marks per element and principle)**

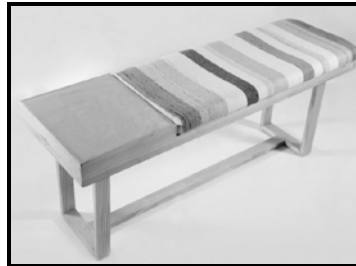
- **BALANCE**
The images are arranged in a bilateral symmetrical balanced manner to create a sense of order and calmness. The clustering of the images in a circular form around a large central motif shows off radial balance.
- **FOCAL POINT**
The DC circular pendant on a chain is the predominant focal point as it is placed right in the centre. It is clearly the biggest image in the illustration. The two points of the heart also direct the eye to the DC pendant.
- **RHYTHM**
The repeated images, for example hats, sneakers, cellphones and rings make your eyes wander in a vertical, horizontal and circular movement. The repeat of many circular images, for example the rings and the central pendant and the flower image also contribute to creating a circular rhythm.
- **CONTRAST**
The plain, flat background contrasts starkly with the numerous images and with the fine detail on many of them. It creates a lively, almost shimmering surface. Small motifs such as the little shiny stars contrast with larger motifs like the hat and the money bag also activating the surface. This shimmering feel communicates opulence and wealth.
- **SHAPE**
The images are all flat and simplified to create a clear and clean composition that reads easily. The money bag, hat, sneaker and bottle are organic shapes that convey movement whilst the cellphone, diamond and other gems are geometric, stabilising this movement.

Credit must be given to any other valid statements.

Q.1.1 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise	30%	1.1	2
	Understand, Explain, Describe		1.1	1
Middle Order	Apply, Implement, Organise	40%	1.1	4
Higher Order	Analyse, Interpret	30%	1.1	1
	Reflect, Judge		1.1	1
	Synthesis		1.1	1

OR

1.2 [Allocate a maximum of 2 marks per design term for a total of 10 marks]



- **ECLECTIC**

The term eclectic means to borrow from a variety of design styles/periods, to form a new, unique design. The simple rectangular form of the bench makes reference to the Bauhaus and Modernist ideals of Minimalism and 'Less is More'. Another possible reference is to Scandinavian Design's emphasis on functionality, clean lines, light materials and bright colours and their use of sustainable materials. The Postmodernist belief in environmentally sound designs is also visible in this product's use of woven recycled plastic.

- **TRUTH TO MATERIALS**

In keeping with the philosophy of 'truth to materials' the wood of the bench is kept unpainted to reflect the beauty of its natural state. The colour and grain of the wood is left visible linking the bench to nature.

- **MINIMALISM**

The meaning of the term Minimalism implies "Less is More" i.e. the designer has used the 'bare necessities' to create a clean and streamlined form.

- FORM FOLLOWS FUNCTION**
 The simple form of the design emphasises its function. All emphasis is placed on functionality and decoration is economically applied to emphasise the simple geometric form.
- UPCYCLED**
 The fibres of the textile section of the bench are formed from recycled plastic bags. The plastic bags have been upcycled to achieve a new purpose, i.e. becoming upholstery.

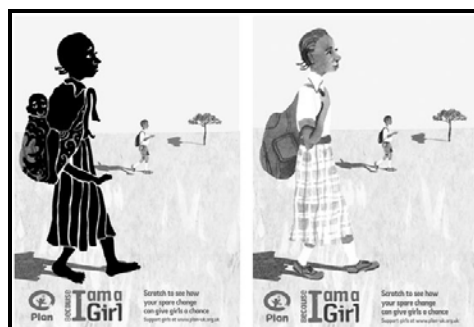
Credit must be given to any other valid statements.

Q.1.2 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise	30%	1.2	1
	Understand, Explain, Describe, Classify		1.2	2
Middle Order	Apply, Implement, Organise	40%	1.2	4
Higher Order	Analyse, Interpret	30%	1.2	1
	Reflect, Judge		1.2	1
	Synthesis, Justify		1.2	1

COMMUNICATION THROUGH DESIGN

QUESTION 2 [10 marks]

2.1 (Allocate 8 marks)



(Allocate 2 marks)

- Use of colour**
 This message seems to be set within an African context because of the sub-Saharan background which is brown, dry with very little greenery. The use of the colour black symbolises the doom, dread, emptiness and sadness of poverty. The contrast of the black image of the girl in the left image in comparison to the brightly coloured figure of the girl in the image on the right could possibly symbolise the difference in a future with an education versus one without an education.

(Allocate 3 marks)

- **The use of imagery in the poster**

The message of the poster conveys the importance of educating little girls as equally important as educating little boys. This is communicated through the image of the little girl in the foreground and the image of the little boy in the background on both posters. Often male children are given an opportunity to get an education as they are traditionally viewed as future breadwinners. The girl child, on the other hand, is viewed as a future mother and wife with little importance and therefore there is no need for education. The little barefooted girl in the image on the left conveys poverty.

(Allocate 3 marks)

- **The font in the slogan of the campaign (Because I am a girl)**

The “I” in the slogan is elongated/stretched which could communicate that by empowering the girls with education you are giving them the power to reach for the sky. In attaining dreams and allowing them to have a bright future. The font is slightly childlike to show her vulnerability. The size and colour of the word 'girl' is highlighted to emphasise the importance of educating girls. The pink red colour of the font also stereotypes against girls.

(Allocate 2 marks)

- 2.2 This poster in FIGURE C assumes that all men have access to education and that all rural black girls are disadvantaged and destined to fall pregnant, without getting an education. The poster stereotypes against black girls as there are girls from other race groups that are also affected by poverty.

Credit must be given to any other valid statements.

Q.2 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise, Name	30%	2.1	2
	Understand, Explain, Describe, Classify		2.1	1
Middle Order	Apply, Implement, Organise	40%	2.1	3
			2.2	1
Higher Order	Analyse, Compare, Interpret	30%	2.1	2
	Evaluate, Reflect, Judge		2.2	1

QUESTION 3 [10 marks]**ANSWER EITHER QUESTION 3.1 OR QUESTION 3.2.****(OPTION 1)****3.1 [10 marks]**

The dress in FIGURE D could be **inspired** by the flowing attire of Arabian women. The use of boots and strong bands of black in the pattern evokes associations with uniforms/armour of soldiers as well as with the 'Sub-Saharan emo' subculture (use of a lot of black in the clothing with black boots). FIGURE E is an eclectic design influenced by many styles and movements, for example, the linear texture on the surface of FIGURE E is reminiscent of Indonesian batik cloth, while the strong diamond and triangular patterns are Xhosa Shweshwe in style. The short, puffy skirt is funky, girlish and contemporary in inspiration. The **pattern** on FIGURE D is modern and could be inspired by machine-age movements such as the Bauhaus and De Stijl as it consists of straight lines and geometric, block-like shapes.

FIGURE D's **forms** are large and sweeping, consisting of a heavy, flowing and loose skirt form and a block-like top whereas FIGURE E's forms are small and crisp. The top of FIGURE E is tight fitting, contrasting with the skirt that is short and puffy expressing a girlish youthfulness. The large, sweeping forms of FIGURE D, in comparison evoke images of traditional ethnical tribal wear.

The repetition of thin, straight horizontals and thick horizontal and vertical bands of black create a striking plaid-like pattern. The pattern on FIGURE E, on the other hand is more organic and African in style due to the repeated tie-dye or batik texture and the repetitive small triangles and diamonds.

The heavy black bands and strong red primary **colour** of FIGURE D creates a dramatic, eye-catching design. FIGURE E also consists of a dominant red but this red is deeper and more subdued. The contrasts of yellow and white triangles form areas of light contrasts creating a more active surface than that of FIGURE D. The contrast between the red and black creates a dynamic colour aesthetic.

Both dresses can be considered **avant-garde**. FIGURE D fuses a traditional dress form with modern machine-age pattern and combines this with industrial-like black boots to create an almost futurist image. FIGURE E uses a traditional African print to create a funky modern dress. The combination of a western felt hat on top of an African headscarf, as well as the inclusion of high heels and an ethnic style necklace, accentuates the eclecticism of the design.

Credit must be given to any other valid statements.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. Use the cognitive level grid as a guideline for your marking

Q.3.1 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise	30%	3.1	1
	Understand, Explain, Describe		3.1	2
Middle Order	Apply, Implement, Organise	40%	3.1	4
Higher Order	Analyse, Compare, Interpret	30%	3.1	1
	Evaluate, Reflect		3.1	1
	Create, Synthesise		3.1	1

OR

(OPTION 2)**3.2 [10 marks]**

The Notre Dame du Haut **functions** as a contemporary place of worship dedicated to the Virgin Mary. The Basilica of St Paul is also a place of worship in honour of St Paul whose tomb was placed directly under the altar. It is a Roman basilica, the first model built for a Christian church.

Typical of the Roman Basilica the Basilica of St Paul's main **structure** is a simple rectangle with three aisles, with the main one in the centre (the nave) built higher than the sides and including windows (a clerestory) above the side aisles. The repeated vertical columns and a horizontal entablature create a very stable structure, typical of classical architecture. The structure of the Notre Dame du Haut, on the other hand, is very irregular, sculptural and organic reminiscent of heavy rock formations. The semi-circular apse at the top end of the basilica softens the general rectilinearity. The Notre Dame du Haut, on the other hand, consists of many curved edges balanced by a few verticals. The roof of the Notre Dame du Haut reminds one of a slab of rock and appears to be floating from the inside. A space of several centimetres between the roof and the walls allowing **daylight** to enter enhances this floating feeling.

The Basilica of St Paul acquires its soft, glowing **light** from the row of windows in the clerestory, whereas the Notre Dame du Haut achieves light from rectangular openings deeply set in the thick walls creating a spiritual and meditative atmosphere inside the building. The Basilica's light is gold in colour, glorifying God's Kingdom whereas the light in the Notre Dame is white, glorifying God's purity.

The Basilica is constructed from traditional natural **building materials** such as marble, alabaster and granite, whereas the Notre Dame du Haut is constructed from both white stone and rugged concrete. The stone that dominates the Basilica gives it a solid, strong feeling. The concrete and stone of the Notre Dame du Haut also exudes solidity and earthiness. The floor of the chapel follows the natural slope of the hill down towards the altar. Certain parts, in particular those upon which the interior and exterior altars rest, are of beautiful white stone from Bourgogne, as are the altars themselves. The towers are constructed of stone masonry and are capped by cement domes.

Many surfaces of the Basilica are highly **decorated** with golden and coloured-glass mosaics illustrating religious imagery such as the Apocalypse of John, with the bust of Christ in the middle flanked by the 24 doctors of the church, surmounted by the flying symbols of the four Evangelists. This decoration is very sensual and expressive. The wall surfaces of the Notre Dame du Haut in contrast, are unadorned and painted white, reflecting simplicity and purity. The roof is also a neutral black contributing to this general mood of seriousness. The surfaces of the Basilica are smooth whereas the interior and the exterior of the chapel are surfaced with mortar sprayed on with a cement gun and then white-washed giving them an organic feel.

Credit must be given to any other valid statements or a comparison of a classical and contemporary building that the candidate has studied.

NOTE: A maximum of ONLY 3 marks may be allocated to tabular comparison responses. Use the cognitive level grid as a guideline for your marking.

Q.3.2 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (10)
Lower Order	Remember, Recall, Recognise	30%	3.2	1
	Understand, Explain, Describe, Classify		3.2	2
Middle Order	Apply, Implement, Organise	40%	3.2	4
Higher Order	Analyse, Compare, Interpret	30%	3.2	1
	Evaluate, Reflect		3.2	1
	Create, Synthesise, Justify		3.2	1

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. Please note that only one mark can be allocated for the name of a designer and product for each movement. Please use the cognitive level grid as a guideline for your marking.)

This memo supplies an answer for the following two possibilities:

ARTS AND CRAFTS AND DECONSTRUCTIVISM**Arts and Crafts**

The above quote is by William Morris one of the founders of the Arts and Crafts movement. The Arts and Crafts movement **aimed** to place an emphasis on the natural unity between form, function and decoration, keeping their designs simple, elegant and functional. They aimed to turn around the poor taste and inferior quality of mass-produced goods, which were over-designed and full of unnecessary detail. The movement aimed to condemn the capitalist industrial production that was based on making money. A number of artists and craftspeople were involved and it marked the beginning of time where an importance was attached to the design of everyday objects. During the Victorian era many factory produced designs were designed by the machine operators or by the factory owners. Their designs were of poor taste and full of unnecessary detail. As the above quote states; Morris developed the view that design should aim to be both beautiful and functional. A focus on quality and craftsmanship and the use of the natural materials **characterised** the Art and Craft designs as honest, meaning that you can see the joints and manufacturing marks instead of hiding or covering them with decorative elements. Designs were kept simple, elegant and functional and stained glass, wood, textiles and natural brick were popular materials.

All paper, inks and textile designs were produced by hand, using organic materials. This is a key characteristic of Arts and Crafts design and the result is complete control of the quality and production of design. The Arts and Crafts style characteristics harked back to medieval architecture and tapestries, illuminated manuscripts and rustic styles of decoration and furniture. Their subject matter was drawn from the plants, animals and the birds of nature, particularly in wall paper and textile design.

William Morris began printing on calico when he purchased the Merton abbey works in 1881. True to the aims and characteristics of the movement Morris aimed to produce an item that was beautiful, hand crafted and made in such a way that it would benefit the workers. ☑ Fabrics were dyed using only the highest quality, natural dyes based on herbal recipes. ☑ The printed **textile from Morris and Co. 1884 produced in Merton Abbey** was dyed using the indigo discharge method. The method involves first dyeing the calico an indigo blue shade and then removing the areas where the design appears with bleach. Finally the fabric is dyed again using red and yellow resulting in a deep palette of reds, oranges, purples, greens and blues. ☑ The textile design is based on natural motifs (flowers, vines and leaves). A sense of perspective is achieved by overlapping the flowers and stems. Texture was achieved through patterning. Gentle wavy lines and regularly curving patterns of leaves and flowers along with stylised scroll leaf pattern create an aesthetically appealing design. ☑ This example is both useful and beautiful.

Deconstructivism

Contradictory to the above statement instead of focusing on the function and the construction and aesthetics of designs, Deconstructivist designers focused on exploring the relationship between the different parts of a design. ☑ The resulting style resembles designs that are irregular and literally fragmented. ☑ 'Unnecessary' lines and forms are created for the sake of creating new and original structures. ☑

The **aims** of Deconstructivism are based on the writings of French philosopher Jacques Derrida. Derrida explores uncertainties and opposites that are in a state of instability and the unseen relationships between all things rather than the function and usefulness of parts. ☑ Their designs aimed to pull things apart in order to investigate the relationship between the parts. ☑ Deconstructivism aims to question structures and forms that have existed and been accepted over the ages. ☑ These basic norms are subverted and disturbed. Lines and shapes become fluid and often defy gravity or visual stability. ☑

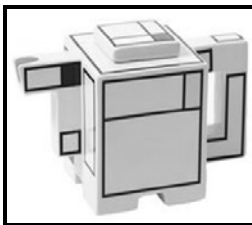
Frank Gehry is a Deconstructivist architect who uses highly unconventional materials in unusual ways. Gehry has broken new ground in architectural design by exploring the stylistic **characteristics** of Deconstructivism in the way he manipulates shape and texture. ☑ The **Guggenheim Art Museum** in Bilbao Spain, is an iconic example of Deconstructivism. ☑ Its function/'use' as an art museum is subsidiary and the fact that it does not conform to normal building specifications contradicts the latter part of the above statement. Its lack of conformity allows the building to be considered ugly therefore not believed to be beautiful; it disregards the norms of a Classical Western art museum. ☑ The unconventional exterior of the building is clad in half millimetre thick titanium panels that reflect light at all times of the day and night interspersed by limestone and glass, providing transparency and a neutral colour. The titanium does not oxidise but is a most unusual and controversial cladding material for buildings. ☑ These materials are chosen for their unconventional characteristics rather than for their 'beauty' or 'usefulness'. ☑

The Guggenheim Art museum designed in the Deconstructivist style characteristically has no conventional straight line and right-angled corner in the design creating an unstable composition. These lines and forms are not essential to the function of the building but are used for the sake of exploring a new architectural style based on the relationship between opposites. In conclusion the Deconstructivist movement is the antithesis of the above quote.

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 [10 marks]



Inspiration

De Stijl was founded by a group of Dutch designers who were inspired by the Dutch tradition of logic, severity and clarity. Art Deco was inspired by a societal fascination with ancient exotic societies such as Ancient Egypt, Aztec Civilizations and Africa.

Aims

Both Art Deco and De Stijl design movements occur between the two World Wars. In a desperate attempt to escape the horrors of a war torn society, the Art Deco movement aimed to create an alternative reality of exoticism, glamour, elegance and luxury. The De Stijl movement, on the other hand, did not attempt to escape reality but attempted to find the essence of reality through geometric abstraction. They aimed to restore order after the chaos of the World War by exploring abstraction and reducing the design elements to a universal language that focused on geometry.

During the Art Deco age, machinery was used extensively to create new products which, like the tea set of Clarice Cliff, aimed to meet the day to day needs of city dwellers. ☑ The culture of the industrial revolution had increased urban population which meant there was a demand for machine-made goods and entertainment at affordable prices and a need to escape 'everyday life'. ☑

Line

The De Stijl tea pot's use of vertical and horizontal line is typical of the movement's rigidity. ☑ They moved away from tradition and used geometric bold lines creating a simple, clean effect. ☑ The line of the Art Deco tea pot is more varied and expressive with the use of wavy and straight lines creating a more organic feel. ☑

Shape

Characteristic of Art Deco is the tea pot's use of simple modernist shapes. The edges are clean, straight and zigzagged edges creating dynamic, streamlined shapes. ☑ On the other hand the De Stijl movement established the use of pure, geometric shapes. ☑ This characteristic is evident in the De Stijl tea pot which displays stark right angled shapes. ☑

Decoration

De Stijl's decoration is abstract, evolving from their focus on geometry and mathematics. ☑ Instead of traditional decoration as still evident in the Art Deco tea set, it broke with all design and art conventions. ☑ The "De Stijl tea pot" shows the simplification of decoration into 'basic' building blocks of visual expression, geometric forms, vertical and horizontal lines and only the three primary colours, black and white. ☑ De Stijl rejected all reference to tradition and external reality and looked to architecture and urban planning for decoration. ☑ Contrary to this, the Art Deco tea pot shows recognisable subject matter such as the sun, mountains and a flower, but typical of the movement, these images are stylised, decorative and two-dimensional. ☑

Credit must be given to any other valid statements.

NOTE: A maximum of ONLY 3 marks may be allocated for tabular comparison responses. 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	1
	Understand, Explain, Describe, Classify		4.2	2
Middle Order	Apply, Implement, Organise	40%	4.2	4
Higher Order	Analyse, Compare, Interpret	30%	4.2	1
	Evaluate, Reflect, Judge		4.2	1
	Create, Synthesise, Justify		4.2	1

TOTAL SECTION B: 30

SECTION C: SOCIO-CULTURAL/ENVIRONMENTAL AND SUSTAINABLE CONTEXT**QUESTION 5 [20 marks]****ANSWER EITHER QUESTION 5.1 OR QUESTION 5.2.****(OPTION 1)****5.1 [20 marks]****5.1.1 (Allocate 6 marks)****(Allocate 2 marks)**

- **Imagery**

The poster is conveying the message that smoking is bad for one's health.

The image of teeth decaying is a very repulsive image successfully conveying the negative impact on one's health.

The skin around the teeth looks inflamed contributing to this anti-tobacco message.

(Allocate 2 marks)

- **Design Layout**

The image is placed strategically so that it appears as if a hand reaching for a cigarette can be bitten. This also emphasises the danger of smoking. The image of the cigarette box is large and dominant making it the focal point, confronting the viewer. The top quarter of the poster consists of a clear message in a white text block against a dark background also attracting the eye of the viewer.

(Allocate 2 marks)

- **Use of Font**

A simple, sans serif font is used which helps to convey the message in a clear and direct way. The use of capital letters emphasise the importance of the message conveyed. The white font contrasts with the black background, further emphasising the importance of the message.

Credit any other valid statements.

- 5.1.2 **Allocate 14 marks in total
(Allocate 7 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:

Necklace from felt and beads by Zimele Social Empowerment craft group

Aims:

Zimele focuses on developing community self-reliance through crafts.

Zimele is a non-profit organisation based in Pietermaritzburg that was founded in 2007 by Rosetta Stander. Determined to break the cycle of 'hand-out dependency' and basing her model on highly successful schemes in India, she created Zimele, meaning "people stand on their own feet" in Zulu. Zimele is a non-profit organisation that acts as a facilitator, not just feeding people for a day but leading them towards belief in their personal ability to work their way out of poverty. Zimele's aim is to focus on the individual's journey to self-worth, self-realisation, and finally sustainable self-sufficiency. People are therefore able to contribute fully according to their individual strengths on a community level for the ultimate benefit of both the individual and the wider community.

Methods and processes:

Zimele is currently implementing its programmes in all 11 districts of KwaZulu-Natal with approximately 3500 women actively involved with Zimele.

The Zimele model works to:

- empower women by unlocking skills, resources, support systems and networks, and
- create new opportunities such as local and international markets and links to government programmes

Zimele pursues this vision through providing women with the knowledge, skills, resources and support networks to sustain themselves and their families. Women are traditionally excellent crafters within Zulu society and many rural women have existing craft skills.

Through Zimele they are trained to make high quality items, using their incredible talents. They work with fabric, felt and beads to make a range of stationery, bags, decorations, home ware and jewellery. ☑ The range includes bags, décor, homeware and jewellery made from felt, beadwork and fabric. ☑

The training and materials are free of charge, although the women are expected to purchase the tools/equipment needed such as needles, scissors and pliers. ☑ Once the products are of a good standard, the women purchase the raw materials and Zimele pays for the items that they make on order. ☑

A discussion of ONE example that reflects social responsibility

The Necklace made from felt and beads consists of differently sized, colourful circular discs ☑ hanging from different strands of string/twine to create a playful and fun necklace. ☑



ONE INTERNATIONAL DESIGNER/DESIGN GROUP

Makoko floating school designed and built by NLE in collaboration with the Makoko Waterfront Community, in Lagos State. ☑

Nigerian architect Kunié Adeyemi, ☑ the founder and principal of NLE Works, in collaboration with the Makoko Waterfront Community, conceived, designed and built the floating school, in Lagos State. The project was initially self-funded by NLE and later received research funds from Heinrich Boll Stiftung as well as funds for its construction from the UNDP/Federal Ministry of Environment Africa Adaptation Programme (AAP).

Aims:

Makoko Floating School is a 'prototype' building structure for NLE's proposed 'Lagos Water Communities Project' and its 'African Water Cities' research project. ☑

Makoko Floating School addresses physical and social needs in view of the growing challenges of climate change in an urbanising African context. ☑ It is a movable 'building' or 'watercraft' currently located in the aquatic community of Makoko in the lagoon heart of Africa's second most populous city - Lagos, Nigeria. It is a floating structure that adapts to the tidal changes and varying water levels, making it safe from flooding and storm surges. ☑ It is designed to use renewable energy, to recycle organic waste and to harvest rainwater. ☑

Methods and processes:

The simple yet innovative structure adheres to ideal standards of sustainable development with its inclusive technologies for renewable energy, waste reduction, water and sewage treatment as well as the promotion of low-carbon transport. Furthermore a team of eight Makoko-based builders constructed it using eco-friendly, locally sourced bamboo and wood procured from a local sawmill.

A discussion of ONE example that reflects social responsibility

Construction began in September 2012 with floatation mock-ups and testing. Recycled empty plastic barrels found abundantly in Lagos were used for the building's buoyancy system, which consists of 16 wooden modules, each containing 16 barrels. The modules were assembled on the water, creating the platform that provides buoyancy for the building and its users. Once this was assembled, construction of the A-frame followed and was completed by March 2013. Makoko Floating School is now in regular use by the community as a social, cultural and economic centre and will soon welcome its first pupils for use as a primary school.

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	4
			5.1.2	4
Higher Order	Analyse, Compare, Interpret	30%	5.1.2	3
	Evaluate, Reflect, Judge		5.1.2	2
	Create, Synthesise, Justify		5.1.2	1

OR

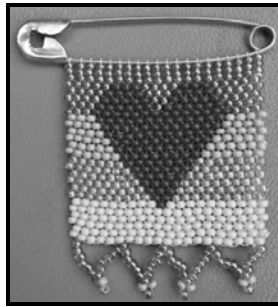
5.2 (OPTION 2) [20 marks]**5.2.1 (Allocate 10 marks: 2 marks per requirement)**

Traditional beadwork was used as a method of colonial trade. It was also a means of expression, communication and storytelling. In the past, patterns and colours were woven into beadwork, symbolising feelings and ideas to lovers and friends e.g. Zulu Love Letters. Even though there is an influx of cultures in the present day, the traditional etiquette of beadwork communication is upheld by younger generations.

The value of traditional craft for any culture is to reconnect with ancestors, social and cultural practices and traditions, customs, heritage knowledge, historical background, identity, all in a desperate attempt to find out who we are, where we belong and where we are going. If we ignore our past, we have no way of finding our tomorrow. It is a reality that most South Africans idolise and adore Western American culture. If we do not value our traditional crafts, the South Africans may end up losing their cultural roots.

The function of most of the bead work is created by women living in the rural areas of South Africa. As human beings, they have always expressed themselves through personal decoration and that came as an expression to enhance physical appearance. Apart from enhancing physical appearance, beadwork could express superior status or may possibly possess magical properties to protect human from illness or hurtful forces.

The materials, methods and processes used by the beadworkers show the use of different kinds of materials to take beadwork to new levels by combining traditional beadwork skill with contemporary designs. To create jewellery and objects that delights the senses with their richness and colour. Seeds, stones, bits of bone, colourful glass beads and precious gemstones are used. The brightly coloured beads are creatively strung on cotton thread in diamond-shaped patterns in widths of three inches all around. The glass beads are usually arranged in blocks of five traditional colours (sky blue, grass green, red, black and yellow).



A description of ONE example – isiZulu love letter

The beaded love letter is used by Zulu women to communicate with their men. ☑ This communication is coded in colours and geometric shapes of triangular shape and usually a maximum of seven colours. ☑ The three corners represent the father, mother and child. White usually represents spiritual love, purity and virginity. ☑

Colour Coding refers to the use of various colours to convey meaning in a code. Colour coding assumes that in a given context various basic colours have a static meaning, literal or figurative. Regional styles speak largely to the outside. ☑

- Name(s) of the craftsperson or indigenous cultural community that produced the craft: Zulu women in Hillcrest AIDS centre. ☑
- Isishunka (seven colours) - white, light blue, dark green, pale yellow, pink, red and black.
- Isithembu (five colours) - light blue, grass green, bright yellow, red and black.
- Umzansi (four colours) – white, dark blue, grass green and red.
- Isinyolovane – a combination of any colours not consistent with other schemes.

Credit any other valid statements.

5.2.2 (Allocate 10 marks)



- Name of designer/group and his/her/their design product/s**
 The Egg Chair by Studio Stirling.
- A detailed description of how traditional technique/methods and material have been applied to contemporary design. Refer to specific examples to support your statements.**
 Studio Stirling makes beautiful handmade hanging chairs.
 The 'Egg Chair' makes use of durable steel material and is ideal for outside use.
 The 'Egg Chair' is handmade with unique individualism.
 The patterns are welded using a weaving technique to enhance the aesthetic and durable quality.
 The hanging chairs are the passion of Studio Stirling and their most popular models are the 'nest egg', 'recliner' and 'basket'.
- Discuss the socio-cultural contribution of the design/s.**
 The founders of Studio Stirling consider the company as a program that has been designed to encourage collaboration between the designers, sharing common difficulties and solutions, mentorship and utilising new manufacturing processes and materials in a true interchange of skills, aesthetics and narratives.
 The company's headquarters are in South Africa, and it has branches worldwide. Studio Stirling is focused on identifying the specific areas of need of each company and is an immediate and business orientated initiative, repositioning the design companies in particular East, West and Southern Africa.

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

QUESTION 6**6.1 [20 marks]****6.1.1 (Allocate 2 marks)**

Sustainable designs reduce the consumption of non-renewable resources by the careful selection of materials that are bio-degradable and recyclable for design works.

Credit any other valid statements.

6.1.2 (Allocate 4 marks)**• Plastics**

Some plastics are non-renewable, they account for the majority of waste that gets dumped in the rivers, sea, dams and landfills. Therefore the use of these plastics in design products helps minimise waste and the negative impact on the environment.

• Tyres

Tyres are a non-renewable resource and the majority of people and the commercial transportation industries discard their old tyres in landfills. The use of these tyres as materials in the design of products helps minimise waste and the negative impact on the environment.

• Wood

Wood is a durable bio-degradable/natural resource; the use of this material in design products has no negative impact on the environment.

• Glass

Glass is a renewable material that can be melted to design new design products. The abundant wasted glass means that glass is readily available with our ever growing world population needs.

• Paper

Used paper can be renewed and re-used in new products. The overly abundant unused paper enhances the sustainable nature of the product.

Credit any other valid statements.

**6.2 Allocate 14 marks in total
(Allocate 7 marks per case study)**

EXAMPLE OF A SOUTH AFRICAN DESIGNER:

(Allocate 1 mark to both the name of the designer and name of the product)

ONE CONTEMPORARY SOUTH AFRICAN DESIGNER WHOSE WORK EXPLORES SUSTAINABLE SOURCES/MATERIALS AND TRANSFORMS THEM INTO SIGNIFICANT DESIGN PRODUCTS.



Erwin van der Weerd – Perfect Places architect **(Allocate 1 mark)**

Title and brief description of at least one example undertaken by the designer/design agency or studio (Allocate 3 marks)

The Hemp House built by Hemporium's Tony Budden and Duncan Parker, Cape Town South Africa.

The Hemp House is a two bedroom house, characteristically sharp-angled, sleek and minimalistic. The house was recently completed in Noordhoek, Cape Town, uses hempcrete, hemp insulation, hemp particle board for cupboards and wall claddings. Hemp carpeting is used for the flooring, hemp fabric for the curtains, upholstery, bed linen and lighting. Hemp insulation is used under the floor and hemp oil as a protective coat for timber furniture. The hemp aspect of the building, which accounts for up to 50% of the walls, was grown in a few months without the need for agro-chemicals, and results in a breathable, natural, sustainable and carbon-friendly building. The windows are gas-filled, they prevent heat leaking out of the closed windows with double action seal. The windows are complimented by an automated opening system attached to thermostats that regulate internal temperature by opening on the cooler/hotter side of the house depending on the time of the year. The kitchen is designed using a combination of recycled second-life store tops from Cannata and reclaimed Oregon pine. The bathrooms feature recycled second-life stone tops used on the bamboo vanities, imperviousness to water and aesthetic appeal. Cork flooring is used on the ground floor mainly because of the sustainability element (only the bark is harvested from the tree, causing no damage to the tree which regrows new bark). All lighting is energy-saving LEDs supplied by Earthpower. Appliances such as the refrigerator, washing machine, dishwasher and television are also energy saving compliant.

- **Transformation of the sustainable material**

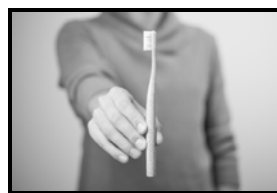
The 'hemp house' is a project to showcase industrial hemp and its potential as an eco-construction material. ☑ The hemp house is a standing example of the viability of the replacing of traditional building materials with sustainable material. The house is also a reminder of the amazing environmental benefits which might be gained from more extensive integration of hemp into the construction industry. ☑ Hemp construction focuses on using the hemp stalks, which produces long strong hollow fibres that can be used to make insulation mats, ☑ while the woody part can be pressed into tree-free particle boards for use in cabinets and panelling, ☑ as well as hempcrete when mixed with a lime-based binder. ☑ The aim of using hemp in construction is to move from an extractive method relying on mined and synthetic materials to a renewable method. ☑

- **The impact of the design on the environment**

Industrial Hemp refers to a non-narcotic cannabis cultivar that is used for a wide range of end products. Hemp has anti-bacterial and anti-allergenic properties ☑ with excellent thermal and sound insulation properties. ☑ As an organic fibre it allows the walls to breathe and helps purify the air. ☑ Hemp grows up to 4m tall in 4-5 months and is organic by nature. ☑ It can be used as a sustainable resource for paper, fuel, textiles, construction materials, bio-composites, nutrition, cosmetics and more. ☑ Currently it is strictly controlled due to its illicit cousin, marijuana/dagga, but over 40 countries are now growing it as part of a move back to a green sustainable economy. Hemp has a low carbon footprint and therefore has no negative impact on the environment. ☑

EXAMPLE OF AN INTERNATIONAL DESIGNER

(Allocate 7 marks per case study – 1 mark for designer and design product)



The bogobrush by John McDougall and Heather McDougall. ☑

- **Brief description of at least one example undertaken by the designer/design agency or studio**

The bogobrush is a cylindrical shape biodegradable toothbrush. ☑ The nylon bristles of the brush are also 100% biodegradable. ☑ The design of the brush is simplistic. ☑ The cylindrical shape of the toothbrush allows it to fit perfectly in one's hand. ☑ The bogobrush bamboo handle replaces the rubber grips found on ordinary toothbrushes. ☑

- Transformation of the sustainable material**
 The toothbrush is constructed from the woody bamboo plant and waste plastics that were destined for the landfill. The plastics that are destined for the landfills are combined with plants from American farms to create the biodegradable handle.
- The impact of the design on the environment**
 The bogobrush avoids contributing to the 450 million toothbrushes thrown away annually in the USA. The product has a low carbon footprint with no negative impact on the environment. Once aged beyond the recommended three months it can be thrown on a compost pile or just buried because of its biodegradable properties.

Credit any other valid statements.

Q.6 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	6.1.1	1
			6.2	2
Lower Order	Understand, Explain, Describe, Classify	30%	6.1.1	1
			6.1.2	2
Middle Order	Apply, Implement, Organise	40%	6.1.2	2
			6.2	6
Higher Order	Analyse, Compare, Interpret	30%	6.1.2	2
	Evaluate, Reflect, Judge		6.2	2
	Create, Synthesise, Justify		6.2	2

TOTAL SECTION C: 40
GRAND TOTAL: 100