



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

DESIGN P1

(THEORY)

NOVEMBER 2018

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 22 pages.

SECTION A: DESIGN LITERACY**'UNSEEN' EXAMPLES****ANSWER EITHER QUESTION 1.1 OR QUESTION 1.2.****QUESTION 1 [10 Marks]****1.1 1.1.1 (Allocate 8 marks)**

Colour: The poster in FIGURE A uses a polychromatic scheme consisting of bold, warm rusts, olive-green, lime-green and a cool grey-blue creating a fun and joyful mood. These colours echo the poster's title which instructs the viewer to 'have fun on foot'. The colourful images are placed on white clouds which heightens their richness. The whiteness of the clouds speaks of purity and freshness. The white may also be symbolic of the lightness (weight-wise) of the sandal.

Contrast: The figurative images on the white cloud background are detailed and outlined making them stand out. They contrast with the plain, flat, light olive-green background and light turquoise abstract, geometric patterns, images of rainbows and scribbly curvilinear patterns. This contrast activates the surface and conveys a sense of festivity. The designer's use of different mediums – the photographed suede and leather of the Tsonga Tslops contrast with the cartoon-like illustrations. A further contrast is seen in the use of large, three-dimensional typography and smaller, flat or two-dimensional words. The left hand side of the poster has natural images (elephant, tree, bird, aloe plant) which contrasts with the right hand side of the poster which has mostly man made items (traditional vessels, sandal and traditional hat worn by the woman). The large size of the sandal in the middle ground, contrasts with the medium size of the typography in the foreground and the small illustrations in the background. Therefore highlighting the sandal in the poster.

Focal Point: The main focal point is the Tsonga Tslops sandal because it is the largest image and it is in the middle of the composition. The poster used a real photograph of the Tsonga Tslops sandal and the textural qualities of the suede and leather that draws your attention. The bold dark brown colour of the sandal is emphasized as it contrasts with the white clouds and the bright lime-green of the background.

Unity: In FIGURE A, unity is created by the repeated use of rust, olive greens, sea green, chocolate brown, grey-blue and white colours. The repetition of geometric decorations and black outlines also unify the work. The white clouds on multiple levels hold and unify all the images. The Tsonga Tslops sandal also touches all the clouds and images thus creating unity of motifs. The overlapping of objects unites the illustration.

1.1.2 (Allocate 2 marks)

'Unity in diversity' is achieved in this poster because cultural symbols that come from the different cultural groups in South Africa have been used. The cultural symbols include the aloe plant which is a sacred plant used in communication with the ancestors, the elephant which is a symbol of strength and wisdom to the South African, the traditional African vessels which are often used to store water, beer or fresh produce from the field or market and the Zulu woman dressed in the traditional hat (isicholo) worn by married women. The different symbols signifying the different cultural groups in the poster come together on the group of fluffy clouds, in therefore the clouds can be seen to represent the unity of the multitude of diverse cultural groups in South Africa.

Some learners may also argue that the poster only refers to a few mainstream cultures and therefore does not express 'unity in diversity'.

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%	1.1.1	2
	Understand, Explain, Describe		1.1.1	1
Middle Order	Apply, Implement, Organise	40%	1.1.1	3
			1.1.2	1
Higher Order	Analyse, Interpret	30%	1.1.1	2
	Reflect, Judge		1.1.2	1
	Synthesis			

OR

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

- **BIOMIMICRY**

The seat and legs of the chair are organic in form to ensure comfort. The bottom of the hind leg to the top of the back rest emulates the form and structure of a reptile from tail to head and helps to strengthen the structure. The cabriole legs mimic the short, stubby curved legs of reptiles.

- **ERGONOMICS**

The chair reflects the form and proportions of the human body to ensure that it supports the human body in a comfortable and safe manner. The height of the chair will allow the average person to sit with their feet firmly on the ground with their legs bent at the knee at a 45 degree angle.

- **FORM**

In FIGURE B, the chair's form is considered amorphous because it is organic and lacks the conventional rectangular form normally associated with a chair, a seat with four legs. Instead the chair has three legs and the sitting area has a more organic form. The back rest is also amorphous in character that shows undulating form reminiscent of carved stone or replicating the form of reptile skin.

- **TEXTURE**

The texture of FIGURE B is actual and tactile. The back of the chair is rough and knobbly and crafted to create a scale-like texture that resembles a crocodile reptile. In contrast, the seating area is smooth and polished, reminiscent of bone, to assure comfort.

- **BALANCE**

The chair is asymmetrically balanced when viewed from the side profile. This enhances the aesthetic experience of the design. The chair appears to be unbalanced with the weight not being proportionally distributed. If the chair is viewed from the front, it appears to be symmetrically balanced with the left hand side being a mirror image of the right hand side. The chair is balanced because of the back leg which is thicker.

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 6 marks)**

Images with symbolic meaning include but not restricted to:

- The Protea can be seen to symbolise the natural beauty of South Africa as it is our national flower.
- The 'Kaapse Klopse' singer in the front is both a symbol of the Cape Malay cultural identity and of festivities and celebration of Cape Town.
- The image of Table Mountain with the sun setting behind is a symbol of the wonders of the world as it has been voted one of the Seven Wonders of the World. It also is a symbol of South Africa's natural beauty.
- The bunch of grapes symbolises the wine industry in South Africa.
- The Aids ribbon symbolises aids awareness and community consciousness.
- The Madiba shirt symbolises pride in the African heritage.
The circle of pattern around Mandela's head could be seen as a halo and gives him a saintly quality.
- Mandela is a symbol of peace. He brought unity and peace to South Africa.
- The penguin , which symbolises endangered species.

2.2 Credit must be given to any other valid statements.**(Allocate 2 marks)**

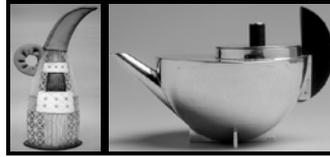
The colours of the shirt are rich, bright and varied communicating a rich spirit and also appear to be a celebration of life. The contrast between the monochromatic head of Mandela and the shirt intensifies the brightness of the shirt which draws attention to Mandela's unique dress sense. The sepia colours used to portray Mandela lend a seriousness and gravity to his person, juxtaposed against the colourful shirt that embraces fun and frivolity.

2.3 (Allocate 2 marks)

The poster in FIGURE C could be seen to be biased in favour of the Western Cape as only the cultures and natural beauty of that province is portrayed. None of the other cultural symbols and natural beauties from other provinces is portrayed. Mandela is perceived as an inclusive figure that promotes cultural diversity and should be visually represented as such. The use of Mandela to represent our country is also biased as there are other heroes that can justly represent our country. The halo above Mandela's head is biased as it portrays him as a saintly individual, although Mandela was a human being prone to human weaknesses. There is a gender and race imbalance; there are only males (Mandela and the man with the umbrella) not including the whole rainbow nation.

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%	2.2	1
	Evaluate, Reflect, Judge		2.3	2

QUESTION 3 [10 marks]**ANSWER EITHER QUESTION 3.1 OR QUESTION 3.2.****3.1 Allocate 10 marks in total**

Both the teapot **forms** in FIGURE D and E are three-dimensional. Hennie Meyer's Teapot (FIG D) is, organic, curvilinear and sensual ☑ whereas the form of the teapot in FIGURE E is geometric, abstract and machine-like. ☑ Meyer's teapot is an embellished form that conceals its function whereas Brandt's teapot is minimalist revealing its function. ☑ Brandt's teapot is typical of Bauhaus products as the form is guided by the 'Form Follows Function' concept. ☑ As opposed to Meyer's that has a busy surface pattern and form.

Hennie Meyer's Postmodernist Teapot is **produced** by hand and each teapot he creates is unique and different. ☑ This production method and use of ceramic clay lends itself to the visibility of finger-marks and imperfections. ☑ Marianne Brandt's teapot is mass-produced by a machine. ☑ There are no imperfections visible as the product is carefully investigated afterwards for any defects. Both teapots are a clear reflection of exquisite craftsmanship and unique production methods created with different techniques. ☑

Hennie Meyer's teapot is made from clay, a **medium** that is pliable, relatively cheap and readily available. ☑ After the teapot is made and decorated it is fired in a kiln to make the clay impermeable. The medium is fragile and breakable. ☑ Marianne Brandt's teapot, on the other hand, is made from stainless steel and black ebony wood to create a strong, durable, shiny, smooth product, hence the title 'Silver and Ebony'. ☑ These materials are heat resistant and able to keep the tea warm for a longer period. ☑ The chrome silver colour will not fade over time and the teapot only needs to be cleaned with soap and water – no polishing is needed. The designer follows the 'Truth to Materials' philosophy. ☑

Hennie Meyer's teapot is highly ornate. A variety of patterns and textures are used to decorate the bulk of the teapot's body giving it a complex and rich surface. ☑ The patterns and textures are applied by hand creating an earthy character. ☑ Marianne Brandt's machine-produced teapot is void of any **decoration** and is more impersonal, focusing on the quality of the materials. ☑

Hennie Meyer's teapot is clearly **inspired** by nature. The teapot resembles a plant or a bird's beak. ☑ The decorations are inspired by African geometric patterns and naïve childlike drawings. ☑ The eclectic form and decorations of the teapot are Art Deco, Aztec zig-zag or Postmodernist inspired. ☑ The product is layered, pluralistic and complex. ☑ Marianne Brandt's teapot is clearly inspired by Bauhaus machine aesthetics. The teapot integrates many Bauhaus and De Stijl characteristics, for example the cold and impersonal Dutch philosophy of mathematical order (in combining geometric forms) is evident. ☑

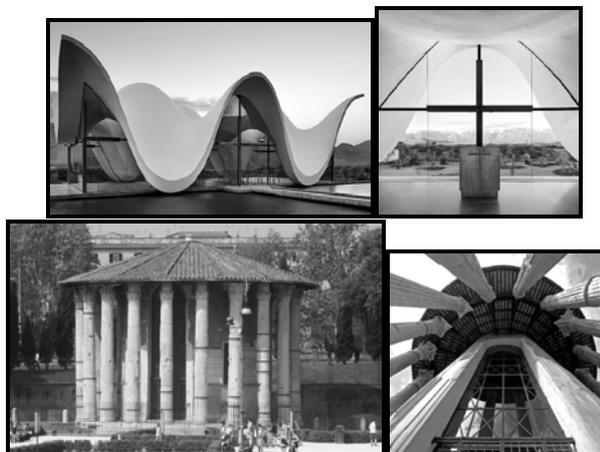
Credit must be given to any other valid statements.

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

3.2 [10 marks]



(Allocate 4 marks)

- 3.2.1 The Temple of Hercules in FIGURE G has a geometrical circular **structure** with a cylindrical stone cella which is an inner chamber that is surrounded by a circular colonnade of Corinthian pillars that orbit around it. The **structure** of the Bosjes chapel in FIGURE F is based on a square glass chamber which is dominated by a floating, organic concrete shell roof structure that undulates above the glass walls.

The tall columns of FIGURE G give the **structure** a lofty appearance which is enhanced by the **structure** of the cylindrical pointed roof. The **structure** of the body of FIGURE F is in the form of a cube of transparent glass which is contrasted by a concrete roof that rises and falls in a sinuous undulating form giving the impression of freedom, reminding one of a bird in flight or a stingray swimming.

The Roman temple of Hercules in FIGURE G shows strong Greek **influences** as it is purported to have been designed by the Greek architect Hermodoras of Salamina during the latter part of the 2nd century BCE and it is a *monopteros* - a round temple of Greek 'peripteral' design completely encircled by a colonnade. ☑ The South African countryside **influences** the design of FIGURE F designed by Steyns' studio in 2016. Surrounded by majestic mountains the sinuous roof mimics a bird in flight and dramatically affords views of the surrounding mountains through the glazed/glass walls of the chapel. ☑ Inspired by the manner in which the Cape Dutch Manor houses set up a dialogue with their environment through their typical undulating gables and white washed walls, the bright white canopy of the Bosjes chapel creates a sculptural relationship with the mountains. ☑ In FIGURE G Roman design is **influenced** and is an evolution of previous styles and successfully combines new innovation and materials with existing design elements from civilizations they conquered. ☑

NOTE: A maximum of ONLY 1 mark may be allocated to tabular comparison responses.

(Allocate 6 marks)

- 3.2.2 The **material** used in FIGURE F for the undulating roof is cast concrete which creates a free-flowing space. ☑ This advanced **technology** allows the concrete shell to appear simple, unifying and as structurally efficient as possible. ☑ The roof also becomes the walls/columns with the use of parabolic and hyperbolic arches. ☑ The Temple of Hercules, in FIGURE G, makes use of a classical Greek building **material**, Pentelic marble which is mined near Athens in Greece. At the time of construction Pentelic marble was one of the more expensive building **materials** and was rarely used for large projects. ☑ The columns, entablature and cella walls were all constructed with Pentelic marble blocks whilst the inner cella walls were lined with tufa and stucco. ☑ Tufa is a variety of limestone formed when carbonate minerals precipitate out of ambient temperature water and stucco is a form of plaster. ☑ The construction of the building makes use of typical 1st century Roman architectural **technology**. This is evident in the construction of the capitals that are made from two separate pieces. A single block is used to carve the base and plinth of the column and the base is integrated into the first step of the podium. ☑

Inspired by the ancient Greek *monopteroi* or round temple which was a circular colonnade supporting a roof but without any walls, FIGURE G **functioned** as the Roman temple of Hercules. ☑ This obscured the view of the idol contained within the temple and **functioned** as a more protective private space. ☑ In contrast to this confined space of the Bosjes Chapel, FIGURE F **functions** as a protective space that embraces the congregation through transparent glass walls allowing for an uncluttered view throughout the chapel. ☑ FIGURE F would also appeal to a broader cross section of a modern society ☑ in contrast to FIGURE G which was more exclusive in function by only including a smaller section of the population. ☑

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	2
	Understand, Explain, Describe, Classify		3.2.2	1
Middle Order	Apply, Implement, Organise	40%	3.2.2	4
Higher Order	Analyse, Compare, Interpret	30%	3.2.1	2
	Evaluate, Reflect			
	Create, Synthesise, Justify		3.2.2	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 marking guideline supplies an answer for the following two possibilities:

SCANDINAVIAN DESIGN AND BAUHAUS

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

Candidates could, for example, choose Scandinavian Design that reflect the quote in FIGURE H.

Scandinavian designers **aim** to create functional products that are well crafted and well finished and at the same time they **aim** to create aesthetically pleasing, beautiful products that reflect elegance, fun and simplicity. Scandinavian Design can therefore be seen to fit with the quotation in FIGURE H.

The organic forms of their designs as well as the use of light wood as a material show the **influence** of nature. The use of simple, functional designs with clean lines and smooth surfaces reflects the influence of the machine aesthetic of the Bauhaus and Modernism. The influence of Surrealist artists like Miro can be seen in the flattening of organic forms into abstract, biomorphic shapes that add an element of fun to the design. This careful choice of influences to link with their aims is further proof that these designers are not just interested in the functionality of their products but also in their aesthetic appeal.

Forms are simple and organic with smooth surfaces and clean lines expressing modernity and lightness. Other **characteristics** include colours that are neutral and calm or bright, cheerful, bold and fresh. Textiles make use of bold, stylised flower motifs and patterns. New materials dominate such as fibreglass, rubber, plastic, vinyl, plywood, aluminium and chrome in their need to create low-cost solutions to modern needs.



Arne Jacobsen's 'Ant Chair' is an example of Scandinavian Design's use of modern materials. It is manufactured from a single piece of laminated wood and its legs are from chrome. Its curvilinear outline and biomorphic, ant- inspired shape reflects their interest in using nature as inspiration. The chair is carefully planned to be functional but at the same time stylish and elegant.

Candidates could choose Bauhaus design that reflects the quote in FIGURE I.

Bauhaus designers clearly reject 'confusion and clutter' in their aim to create simple and functional designs that reflect the machine age. Bauhaus design can therefore be seen to fit with the quotation in FIGURE I. The school **aimed** to train craftsman-designers to design functional, aesthetically pleasing products for mass-production. They believed that form should follow function and that any unnecessary detail would detract from the expression of the function of a product. Their 'truth to materials' philosophy can be seen in their use of unpainted, exposed materials like steel, e.g. steel tubing on a chair.

Bauhaus design is **influenced** by the De Stijl belief in eliminating all non-essential **characteristics** or 'clutter' in order to find the most essential forms, lines and colours. Paul Cezanne's flattening of form to geometric facets and the Constructivists use of geometric abstraction and belief in maximum reduction are also influences on Bauhaus.

Like De Stijl, Bauhaus designers favoured basic, pure, geometric forms, straight lines and smooth surfaces to create impersonal, machine-like products. Colours are reduced to the primary colours (yellow, red and blue) and the neutral colours (black, grey and white) to support the general aim of simplicity.



Wilhelm Wagenfeld's 'Bauhaus lamp' is a good example of an 'uncluttered' Bauhaus design as it is made up of only geometric forms and shapes (the main body of the lampshade is a perfect half sphere, the base is a perfect circular disc and the leg is a cylinder tube). The surface is smooth and unadorned exposing the function of the lamp clearly. The silver of the stainless steel, the white of the frosted shade and the clear glass are all neutral colours exuding calmness. The clear glass contrast with the frosted white and silver adding some drama.

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]



The Art Nouveau book cover in FIGURE J reflects the **influences** of the intricate, intertwining lines of Viking stone carving as well as Viking imagery , whereas the Modernist book cover in FIGURE K reflects the influences of the Machine Age's use of straight lines, geometric shapes and smooth, undecorated surfaces.

Like the Arts and Crafts movement, Art Nouveau also **aims** to establish close links between the artist and craftsman and to transfer the quality of handmade products to their designs. The embossed, intricate details on the book cover in FIGURE J reflect a handmade quality. Modernist designers, on the other hand, aim to create aesthetically pleasing designs that are simple, abstract and 'geometricised' for mass-production by machine. This aim is evident in the Modernist book cover where forms are abstract, simple, machine-like and impersonal.

The rich and exotic use of **colour** in FIGURE J is typical of Art Nouveau. The background is a dusky dark blue with a rich gold decorative swirling pattern embossed on it. The Modernist book cover in FIGURE K uses a steel grey background and the red and white geometric linear image creates a strong contrast.

The **lines** on the Art Nouveau book cover are typical of Art Nouveau as they are curvilinear and organic creating a highly decorative, rhythmic surface pattern. In contrast, the lines on the Modernist book cover are straight, sharp, geometric and clean, which convey control and machine-like rigidity. The lines of the Art Nouveau book cover have a feminine feel with whiplash fluidity whereas the Modernist book design lines are more masculine, machine-like.

The **shapes** of the Art Nouveau book cover are organic and flattened, simplified and stylized, reflecting the influence of Japanese art. The shapes of the Modernist book cover are also simplified but they are abstract instead of representational like those on the Art Nouveau book cover. The Modernist book cover makes use of perspectival lines to create optical illusions of three-dimensional form as opposed to the flat shapes of the Art Nouveau book cover.

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.****5.1 [20 marks]****5.1.1 (Allocate 6 marks)****(Allocate 2 marks)**

- **COMPOSITION**

The arrangement of the object is formal. It is large and centrally placed within a simple symmetrical grid of two blocks emphasising the meaning.

The poster is vertically split to emphasise different realities: violence versus passiveness. The object becomes a focal point in drawing the viewer's attention on violence. The composition is asymmetrical leading the eye from left to right, from the handle of the gun horizontally towards the loud speaker. The curve of the trigger, leads the eye towards the typography in the middle of the poster.

(Allocate 2 marks)

- **SYMBOLISM**

The revolver symbolises war and violence whilst the loudspeaker symbolises peace and nonviolence through the medium of speech. The colour scheme of the object of war (the revolver) is dark, dreary and depressing symbolising the devastation of war on society whereas the loudspeaker is light and bright symbolising hope and a voice.

(Allocate 2 marks)

- **USE OF IMAGERY**

Juxtaposing images are used in the poster. The size of the images is exaggerated, particularly with the size of the revolver that is manipulated to fit and merge with the loudspeaker. Both images are relevant in highlighting the message of the poster with the revolver representing war and violence and the loudspeaker representing a voice and peace.

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:



The Growbag, by **Bonsela**, (South Africa), 2015 is a unique outdoor planter that offers an easy and attractive way to grow your own vegetables, herbs, plants and succulents, regardless of the size of the garden, balcony, driveway or wall and roof space.

Growbag has partnered with Soil for Life to start the Grow to Life Programme to teach communities who live in harsh environments with limited space and resources various techniques of growing their own organic gardens using water wise and low cost methods. Through these gardens their families are ensured adequate nutrition combating the sociocultural problem of hunger. Statistics indicate that 14 million people go to bed hungry in South Africa. *The Growbag* and Soil for Life initiative also encourages communities in their Grow to Life programme to generate an income from their gardens. In this way they address poverty and impart entrepreneurial skills to unemployed individuals. Each *Growbag* is individually handmade hence the manufacturing of the *Growbag* also empowers individuals by creating employment.

The Growbag is made out of reinforced, old billboard vinyl skins that are durable and hence long lasting. Extra growing and storage space is also provided by the side pockets. *The Growbag* is donated to underprivileged communities in Cape Town. *The Growbag* project eradicates hunger caused by the inaccessibility of land for subsistence farming, in impoverished communities i.e. informal settlements and townships. *Growbag* addresses the above mentioned sociocultural concerns by providing a flexible, lightweight gardening solution.

ONE CONTEMPORARY INTERNATIONAL DESIGNER/DESIGN GROUP:

GravityLight by, Jim and Martin of **SkunkWorks projects**, designed in 2009, Kenya.☑

GravityLight is a low-cost solar light that uses energy from a falling weight to illuminate homes that are off-grid and living on less than R40 a day.☑ The light is a revolutionary new approach to storing energy and creating illumination. *GravityLight* was created as a sustainable alternative to paraffin lamps.☑ The light combines kinetic and potential energy, by connecting an elevated weight — filled with rocks or sand — to a pulley system that slowly powers a generator as the weight falls to the ground. It takes only 3 seconds to lift the weight which powers an LED bulb, creating 30 minutes of light on its descent.☑

Because the *Gravitylight* provides an alternative to the paraffin light, it eliminates the health dangers and environmental drawbacks caused by paraffin lamps. The use of paraffin causes 3% of the world's CO₂ emissions and is a significant source of black carbon, which impacts on the environment.☑ The smoke from the use of paraffin lamps also causes respiratory problems, which is equivalent to smoking two packets of cigarettes a day. ☑ The fumes also cause eye infections and cataracts.☑ Accidental paraffin poisoning also has potentially fatal consequences, particularly for children. Using paraffin inside homes can lead to devastating fires and burns. Burning paraffin also comes with a financial burden that can consume 10 to 20% of a household's income.☑

The GravityLight Foundation boosts the local economy by creating a sustainable demand for clean, safe lighting solutions.☑ Through the field sales team and working with local partners in Kenya, *GravityLight* supports Kenyans to earn a living and learn new skills by selling *GravityLights*.☑ Because there are no running costs after the initial low cost purchase, *GravityLight* has the potential to lift people out of poverty, allowing them to use the money they have saved to buy more effective lighting systems in the future.☑

The project was initially self-funded by NLE and then by Lagos State, it 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).

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 [20 marks]



5.2.1 (Allocate 2 marks)

The role of indigenous craft in modern day society is to pay homage to indigenous cultures because many indigenous crafts are embedded in traditional cultural practices. The use of indigenous crafts in modern day society also assists in the continuation of or passing down of knowledge and skills from one generation to another. The continued practice of traditional crafts in modern day society also helps people to connect and express their cultural identities.

5.2.2 (Allocate 8 marks)

Learners can discuss any indigenous craft, e.g. Ndebele House Painting

The Ndebele people were formidable warriors who often subdued the smaller chiefdom's and assimilated them into Ndebele society. Intermarriages ensued and cultural exchanges happened. It is believed that early Ndebele house structure and house-painting strategies came into being as a result of the abovementioned intercultural marriages. The initial wall art designs and symbolic forms were derived from Ndebele beadwork forms and pattern motifs. Consequently, after the Ndebele people were defeated by the Boer farmers in the Boer war in the twentieth century, the Ndebele also started using the expressive symbols in their wall paintings to secretly communicate with each other. These messages were not interceded by the Boer because they were thought to be just a form of cultural art and hence decorative and harmless.

Ndebele house painting is done by women and the craft is passed down from one generation to the next.☑ Usually, the outside gates of the household, front walls, side walls and interior of the home is painted.☑ Traditionally, a well painted house serves as a form of communication conveying the role and social status of the female of that household.☑

In the context of the above discussion Ndebele house painting is significant as an expression of traditional continuity and cultural resistance against colonisation.☑ It is also a way of passing down heritage knowledge and traditional customs from one generation to the next.☑

Prior to the introduction of acrylic pigments in South Africa in the 1940s, only natural pigments were used in Ndebele house paintings.☑ These included monochrome ochres, browns, black and limestone whitewash.☑ The walls were then subsequently seasonally repainted, after the summer rainfalls had washed and eroded away the natural pigments.☑ The women applied the pigments to the wall using just their fingers.☑

A description of ONE work, as well as the name(s) of the cultural group/craftsperson that produced it.

Allocate 1 mark to the name of the indigenous cultural group/craftsperson

Ndebele wall paintings ☑

Ester Mahlangu's traditional wall paintings at the Mahlangu household in KwaNdebele, are characterised by symbolic geometric shapes with bold black cloissonistic outlines. ☑ The flat geometric shapes are in a variety of colours ranging from red, dark red browns, sky blue, deep blue, white, yellow gold, green and the occasional pink. ☑ The combination of the geometric shapes, primary and complementary colour schemes create a rhythmic pattern on the surface of the wall. ☑ These wall paintings were used to secretly communicate information and knowledge about various issues dealing with resistance, colonialism, tradition and heritage. ☑

5.2.3 (Allocate 10 marks)

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

Ashanti Design lampshades by **Robert Walker**. ☑

Ashanti Designs in Cape Town by Robert Walker **aims** to celebrate and pay tribute to traditional crafts in a contemporary way.☑ Ashanti Designs' design ethic is heavily **influenced** African heritage, a sustainable design ethic and biomorphic forms.☑

The **materials and technique** used to construct the Ashanti Designs' lampshades are heavily influenced by Zulu basketry.☑ Particularly, two varieties of the Zulu baskets, the lidded variety that is mainly used for storage and the flat ones that are used for chaffing wheat.☑ Traditionally these baskets were decorated using elaborate arrangement of geometric motifs to create unique zigzag patterns.☑

Characteristically these lampshades are created using pliable materials such as, soft branches, grass, palm fronds, fibres, raffia, fibrous tree and plant roots. ☑ These materials are then hand manipulated using the plaiting, twining and chequer board weaving techniques to create the lampshade. ☑

Socio-culturally, Ashanti Designs empower craftsmen in rural areas by selling their products that teaches these craftsmen valuable entrepreneurial skills.☑ Ashanti Designs also seeks to promote and preserve African Heritage by using African traditional craft techniques to create products that have a function and hence a place in contemporary South Africa.☑

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

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

The poster aims to inform the public/tourist of the damaging effect that plastic waste has on our environment – in this case, specifically in relation to elephants. ✓

The elephant appears to be strangled by the twisted plastic bottle looking like a helpless victim. ✓ The plastic bottle is depicted much larger than the elephant, overpowering it. This shows the destructive power of plastic – even though in reality it is a small lightweight bottle, its caustic properties are so destructive that it can destroy one of the biggest animals in Africa. ✓ The text 'Time is running out for them, not for plastic' is in a simple, sans serif type, bringing the direct, emotive message successfully across in a dreary grey colour. ✓

The discarded plastic water bottle is squashed to resemble an hourglass and the elephant becomes a symbol of life slipping away because of pollution. ✓ The large, empty grey monochromatic background makes reference to a damaged earth which is polluted, dirty, and barren leaving humanity with a bleak future. ✓

6.1.2 (Allocate 2 marks)

To **recycle** means to make new products from non-biodegradable materials that could potentially damage the environment and in so doing prevent them from being discarded on landfills or polluting the earth. ✓ By recycling these materials, the amount of new material production is cut down, resulting in less energy consumption and less carbon dioxide and other toxic fumes or gases being released into the atmosphere. ✓ To **up-cycle** means to adapt and elevate existing materials and products that are no longer in use. Up-cycle implies that the material and product can function again in another context with a different and a higher purpose. ✓

OR

Upcycling is energy efficient process, involving the reusing of waste without destroying it in order to form something new. ✓ **Recycling** takes waste products breaks them down then forms them into something new. ✓

Credit any other valid statements.

- 6.2 **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.

EXAMPLE OF A SOUTH AFRICAN DESIGNER:



Heath Nash, *Don't complain, what you see is what you get*, South Africa, 2011. ☑
Don't complain, what you see is what you get is collaboration between Nash and local Zimbabwean artisans that resulted in a colourful and vibrant use of local resources combined with local craft traditions.

The **aim** of the plastic bottle shades created by Nash is to create shaded areas under which people can congregate, sit, relax and talk to each other. ☑ They can also be used for public kiosks from which vendors can sell flowers and refreshments. ☑ The shades were designed to integrate well with the existing architectural elements of the urban Harare landscape. ☑

Nash's **design process** involves an exploration of waste materials, plastic bottles of all shapes, colours and sizes. ☑ Scrap metal and wood is also utilised. ☑ A roof is constructed from a metal frame that is secured with wire to keep the plastic bottles together. ☑ In some instances, the frame is constructed from wood and metal scraps and aluminium cans are cut and woven to create textural coverings. ☑

The shades are an example of the type of products Nash designs using discarded material deemed to be rubbish. ☑ This project uses bottles that are washed and cut, the unused excess pieces are sent back to the recyclers. ☑ The project helps to clean the environment and to reduce the carbon footprint. ☑

EXAMPLE OF AN INTERNATIONAL DESIGNER:



Ocean sole turns flip-flop pollution into **art and functional products**, for example key holders in the shape of fish or life-size cows and lion heads. ☑ The **material** Ocean Sole uses is discarded flip flops which they have removed from the ocean and waterways in Kenya. This has provided a steady income to over 150 low-income Kenyans. They **aim** to promote conservation of our oceans. ☑ Their aim is to give back to society and change the lives of many through education, income and meals. ☑

Ten per cent of their revenue is donated to marine conservation programmes. Ocean Sole makes **fun art** so that people, companies and charities will remember that the Ocean needs to be clean from pollution. ☑ Their pieces remind people of the trash found in the oceans and waterways that is killing human and marine life in its journey from the dumps to the beaches. ☑

The material source is readily available in that in emerging warm-climate markets, billions of cheap flip-flops are made for the feet of the poor every day. ☑ These flip-flops are worn for a year, at the most and then after many repairs are discarded into dumpsites that ultimately seep into our Earth's waterways and then into our oceans. ☑ The mass of discarded flip-flops pile up and block waterways of fresh water and then make their way to our oceans, killing everything in their way. ☑ Tons of flip-flop pollution is washing up onto the beaches everyday creating an environmental disaster for the marine eco-system and local communities. Using discarded flip flops is a sustainable practice for reducing pollution. ☑

Ocean Sole Founder Julie Church, was inspired by the toys children were making out of discarded flip-flops and encouraged mothers to collect, wash, and cut the discarded flip-flops. ☑ The **process** she designed was to heat various colours of flip-flops into a malleable state and then press them into moulds. This process creates colourful products such as key rings and fun art sculptures e.g. the head of a lion and even a life size cow. ☑

A company was established to promote 'trade not aid' to raise awareness of flip-flop pollution. ☑ This year Ocean Sole has transformed over 50 tons of discarded and lost flip-flops that were found in the ocean and on land and up-cycled them into artworks.

Q.6 LEVEL	COGNITIVE SKILLS	WEIGHTING	QUESTIONS	MARKS (20)
Lower Order	Remember, Recall, Recognise, Name	30%	6.1.1	2
	Understand, xExplain, Describe, Classify		6.1.2 6.2	1 3
Middle Order	Apply, Implement, Organise	40%	6.1.1 6.1.2 6.2	2 1 5
Higher Order	Analyse, Compare, Interpret	30%		
	Evaluate, Reflect, Judge		6.2	2
	Create, Synthesise, Justify		6.2	4

TOTAL SECTION C: 40
GRAND TOTAL: 100