Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 11

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DESIGN P1 MEMORANDUM

MARKS: **150**

This memorandum consists of 22 pages.

SECTION A

QUESTION 1: VISUAL LITERACY – UNSEEN EXAMPLES

- Design terminology: elements and principles of design including FIVE universal principles of design.
- Signs and symbols, stereotyping, bias and prejudice in design: link to visual communication with the focus on illustrations, cartoons, posters, political propaganda, communism, resistance (e.g. Weimar: Germany, Cuba, Russia, China and South Africa)
- History of typography: structure of type, choosing a font, styling of text, main categories of typeface design, concise history of font.

1.1 1.1.1 **(Allocate 10 marks)**
Any of the following FIVE

LINE
- The repetition of circular geometric line throughout the stool creates unity. ☑
- Line moving in different directions creates movement. The zigzag lines around the table top lead the eye horizontally around the design and brings a decorative quality to an otherwise simple design, without compromising the integrity of the design. Short vertical lines form a circular central core to the design which is transparent. This prevents it from appearing too bulky and leads the eye in an upwards/downwards movement. ☑ (2)

SHAPE:
- Circular shapes in different sizes and colours create variation and add to the playful quality of the work. They also break the verticality of the design. ☑
- The ócut offôcone shapes create an inward/outward movement which also helps to break the strong vertical of the stand. ☑ (2)

PATTERN:
- The repetition of different size rings throughout the design creates an irregular vertical pattern that prevents the design from becoming boring.☑
- A zigzag pattern around the edge of the table top creates a series of triangular shapes that draw the eye to the top of the design and creates variety. ☑ (2)

COLOUR:
- Variety is created by the circular shapes of different colours.☑
- Repetition of the complementary colours blue and orange are used to create contrast and movement. ☑ (2)

RHYTHM:

- Rhythm is created through the repetition of different sized circular shapes. They give the design unity. ☑
- Different colours (blue, green and orange) are repeated throughout the work which adds to the feeling of movement and rhythm. The blue base is repeated in the blue metal framework in the centre of the design as well as at the top. The orange is repeated in the centre and at the base of the table top. It also prevents the design from appearing fragmented. ☑ (2)

MOVEMENT:

- Movement is created through the repetition of the different sized circular shapes. This leads the eye up and down the table and adds to the feeling of unity. ☑
- The repetitive zigzag line creates a transparent pattern around the edge of the table. This also helps to reduce the bulkiness of the design.☑ (2)

CONTRAST:

- Large circular shapes contrast with smaller ones which creates variety. ☑
- Large solid forms contrast with clearly defined voids throughout the design. The deliberate use of clearly defined spaces as a design element contrast with solid forms to provide drama and visual impact. ☑ (2)

Credit must also be given for any other well-reasoned answer.
EASY 3, MODERATE 4, CHALLENGING 3

1.2 1.2.1 **(Allocate 3 marks)**

FIGURE 2 is a Propaganda poster. ☑ (1)

THREE of the following can be considered correct:

- The image in FIGURE 1 above is a propaganda poster because it promotes a specific cause. We know this because the supporting text explains that the people are rallying under a communist banner to protest for the right to a share in governmental power. ☑
- It is typical in that it selects a specific audience as its target, the Russian Workers. This is evident in the figure holding the communist banner. He appears to be moving forward while at the same time urging his fellow workers onwards with a backward glance and a raised left arm. ☑
- It has a strong illustrative and narrative quality.☑
- It makes use of limited colour, (no more than 3), to keep production costs down. ☑
- The typography is hand constructed and not done by machine. This is particularly evident in the irregular type used in the banner and in the writing underneath the image. ☑

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- The handmade feel of the posters strengthens the communication between the viewer and the message. We know this because the poster contains a strong human element and the drawings of the figures are hand rendered. This personalises it in a way that a mechanical or digital process cannot. ☑ (2)

Credit any other well-reasoned response.

EASY 1, MODERATE 2, CHALLENGING 1

1.2.2 **(Allocate 2 marks**)

ALIGNMENT:

Alignment refers to how blocks of text are aligned. All the various components in a design or layout should be aligned to one another or to the page. Items/words that are not aligned break the unity of the design and make it appear fragmented. Based on this principle the second and the fourth lines of text at the bottom of the poster are not aligned with the rows immediately above them. This makes the text appear fragmented and not as easy to read at first glance. ☑ (1)

LEADING:

This refers to the amount of space in-between lines of text and originates from the horizontal stripes of lead which were placed between the lines of metal type to keep the lines of words apart. The right amount of spacing between lines makes the writing more legible. In the poster in FIGURE 2 there is not enough space between the lines which makes the wording less legible. ☑ (1)

Credit any other well-reasoned response.

EASY 1, MODERATE 1

1.3 1.3.1 **(Allocate 4 marks)**

CUNEIFORM SCRIPT AND PICTOGRAPHS (2)

FIGURE 3 and 4 refer to the earliest forms of human writing.
FIGURE 3 shows Cuneiform script is one of the earliest known systems of writing. It is distinguished by its wedge-shaped marks on clay tablets, made by means of a blunt reed for a stylus. ☑ FIGURE 4 is an example of Pictographs. Pictographs use a pictorial symbol for a word or phrase. They were used as the earliest known form of writing. Examples discovered in Egypt and Mesopotamia date back to before 3000 BC. ☑ (2)

EASY 2, MODERATE 2

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1.4 1.4.1 **(Allocate 4 marks)**

UBUNTU LOGO:

(Any TWO of the following answers or any other well-reasoned response.)

SYMBOLS:
A symbol can be defined as a shape, design or idea used to represent something. ☑ Two hands, one black and one white, are shown cradling the planet. This symbolises the people of the world working in unity to help the planet. ☑ The wings could be described as angelic, implying protection from a higher source/consciousness. ☑

THE TWO MAIN CATEGORIES OF TYPEFACE:
Typefaces can be divided into two main *categories*: serif and sans serif. Serifs are the small lined features at the end of strokes within letters, for an example **'Times New Roman'.** ó Sans-serif typefaces. (Sans is a French word meaning without) do not have serifs at the end of strokes within the letters. An example of a sans-serif typeface is ó Grotesqueô (Arial is a Neo-Grotesque typeface). ☑

Typefaces without serifs have been used in the UBUNTU logo as they are considered more universal. This implies that they have no specific characteristics that can associate the typeface with any specific country or culture and would therefore have global appeal.☑

TYPEFACE:
It is a set of characters that is of the same design. This includes individual letters, numerals, punctuation marks and symbols. Popular typefaces include Arial, Helvetica, Times Roman and Verdana. ☑ The typeface in the UBUNTU logo is plain, simple and without specific reference to any specific culture or time period. This makes it Universal and without bias, which means that anyone can relate to it. ☑

FONT:
This refers to a specific size of a particular typeface. ☑ For example Arial is a specific typeface and Arial 10 pt bold is a font. All typefaces are measured in fonts. ☑ The UBUNTU poster makes use of a single typeface, but uses TWO different font sizes. The repetition of the same font helps create unity within the design and the different font sizes create variety so that the typeface does not become boring. ☑ (2 x 2) (4)

MODERATE 2, CHALLENGING 2

1.4.2 **(Allocate 3 marks)**

(Any THREE of the following points or any other well-reasoned response.)

CHARACTERISTICS OF AN EFFECTIVE LOGO

The following characteristics of a good logo are evident in the UBUNTU logo:

- The design is simple which makes it striking and it also reads easily. ☑
- The simple design is easy to reproduce and can be adapted to a lot of applications. ☑
- It is unique and immediately recognizable. ☑
- It is memorable and immediately conjures up the image of a global movement. ☑
- As a design it will be just as striking in both colour and in black and white. ☑ (3)

EASY 2, MODERATE 1

1.5 1.5.1 **(Allocate 3 marks)**

STEREOTYPING:

Candidatesô answers must show that they have a good understanding of stereotyping as a fixed impression of a group based on the experience of an individual.

The poster in FIGURE 5 above promotes the negative stereotype that only thin women can be beautiful. It does this by showing a very small child innocently copying her mother by standing on a scale to see how much she weighs, while at the same time saying ôMUMMY, I WANT TO BE JUST LIKE YOUô ☑ Meanwhile the words at the bottom of the poster are encouraging mothers to break the stereotype by consciously reinforcing the idea that a woman does not have to conform to a specific social code to feel comfortable about who they are. ☑ (2)

Credit other well-reasoned response.

EASY 1, MODERATE 1, CHALLENGING 1

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1.5.2 **(Allocate 2 marks)**

THE EFFECTS OF NEGATIVE STEREOTYPING:

- Stereotypical thinking about particular groups or genders can have an influence on how people are treated. For example, the stereotypical idea that all women must be thin to be beautiful and blondes are stupid, may make people talk down to them. ☑
- The endless use of particular stereotypes in advertisements has the subconscious effect of reinforcing the stereotype. People then behave in a way consistent with a particular stereotype to fit in. ☑ For example the stereotype that implies a woman is only beautiful if she is thin can be very harmful to a womanôs self-esteem. This internalisation can lead to self-destructive behaviours, such as eating disorders. This kind of stereotyping can also lead women to be vulnerable to all kinds of spending that would help them perpetuate this image, such as fashion, plastic surgery, makeup, or exercise equipment. ☑

(2)

Credit must also be given to any other well-reasoned answer.

1 MODERATE, CHALLENGING 1

QUESTION 1	1.1	1.2	1.3	1.4	1.5	TOTAL
Easy	3	1	2	2	1	9
Moderate	4	1	2	3	2	12
Challenging	3	2		2	2	9
TOTAL	10	4	4	7	5	30

SECTION B: DESIGN HISTORY AND POPULAR CULTURE

- History of design: Recap Industrial Revolution and the arts and Crafts Movement, Art Nouveau, The Bauhaus, Art Deco, Scandinavian, De Stijl, The Modernist Age.
- Visual Analysis (unseen examples of design): basic terminology that describes and underpins design and characteristics, to be used with confidence.
- Investigation of popular culture within each of the history of design movements listed above, focusing on fashion, music, and social environments.

QUESTION 2: INTERNATIONAL HISTORY OF DESIGN (ART NOUVEAU; BAUHAUS; ART DECO; DE STIJL; MODERNISM; SCANDINAVIAN)

2.1 2.1.1 **(Allocate 10 marks)**

(NOTE: Candidates must write in paragraphs and full sentences, without the use of bullets or separate headings. Separate headings are used in the memo to facilitate marking. Learners must also show point for point comparison.)

AIMS

FIGURE 1 reflects the Art Deco ideal of a design that reflects the latest technology in its smooth lines, geometric shapes, streamlined forms, decorative motifs and details in bright colours. ☑ FIGURE 2 reflects the Bauhaus ideal of minimalism in the form of Functionalism. It states that the form of a building must reflect its function without any extra unnecessary detail. ☑ As a high rise building FIGURE 1 serves the needs of the growing number of city dwellers and shows the Art Deco fascination with the skyscraper. ☑ FIGURE 2 aims to produce housing made up of standardised shapes and forms that can be mass produced and easily erected. This was a response to the housing shortage after the First World War. ☑

INFLUENCES

In FIGURE 1 the buildingôs decorative motifs echo the triangular shapes of Cubism☑.The structure appears to be founded on mathematical block-like and geometric shapes of Constructivism and Graeco-Roman Classicism. The rounded corners of the building add to this feel while the classically influenced pilasters that run up the front of the building add to the decorative detail of the building.☑ Historical influences in the shape of the faceted architectural forms of Babylon, Assyria, Ancient Egypt, and Aztec Mexico are visible in the stepped shape of the building. The zigzag forms are reminiscent of early Egyptian and Aztec ziggurats and bring variation to the design. The same stepped or zigzag shape is repeated in the pattern of decorative orange lines on the front of the building.☑ The wing-like motifs reflect the influence of the sunburst motif typical of the style. FIGURE 2 on the other hand breaks with the idea of eclectism and shows no historical reference whatsoever. ☑ The only visible influences are the grid-like arrangements of shapes in the tradition of Japanese grids, as well as the strong horizontal/vertical relationships between the different shapes and blocks showing the influence of De Stijl. ☑

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THE EFFECTS OF THE MACHINE AGE:

Preoccupation with the 'Machine Age' is strongly evident in both FIGURE 1 and FIGURE 2. The Art Deco building is streamlined and decorative showing the influence of the study of aerodynamics on machines such as cars, ships, trains and aeroplanes. This is evident in the vertical lines of the pilasters and decorative detail at the front of the building as well as the soft curves at the edges. ☑ The stepped shape of the building and decorative detail also adds to the feeling of movement. The horizontal lines created by the windows and brick/plasterwork prevent the verticals from dominating the overall design. ☑ FIGURE 2 reflects the Bauhaus ideal of a single aesthetic style. Mass production was the god and the machine aesthetic demanded that designs were reduced to the absolute essentials. In this example the steel railings of the balconies and the windows would have been massed produced and reinforced concrete would have been used for the cantilevers that form the balconies. ☑ In this way FIGURE 2 reflects the Bauhaus ideal of 'Form follows Function' in that the outer shape of the house clearly reflects its internal function and there is no unnecessary decorative detail, because ornamentation is not functional. For example the clean block-like shapes and forms that make up design of the outer skin (walls) of the building are there only to act as a cover/skin for the inner workings of the building in the same way that a machine requires a cover. ☑ In FIGURE 1 we know that in the tradition of Art Deco many of the decorative motifs would have been mass produced and erected on site. ☑

COLOUR:

The bold use of blue, pink and orange painted exterior of FIGURE creates a bold, lively design in the Art Deco tradition.☑FIGURE 2 reflects the Bauhaus preoccupation with minimalism and the limited colour schemes of De Stijl, which only allowed the use of the three primary colours plus black, white and grey. The white walls of the building are broken by the black line along the edges of the balconies. The black line echoes the dark recesses of the windows and doors and helps to add to the unity of the overall line. The only additional colour can be seen in the yellow/orange of the door/recess at the top of the building.☑

BALANCE:

Art Deco buildings are symmetrical in design as can be seen in FIGURE 1, where each side of the building is a mirror image of the other. ☑ Typical of Bauhaus FIGURE B is asymmetrical in design as each side of the building is different. ☑ This shows the influence of De Stijl, mathematical formulas and Japanese interiors. This resulted in buildings being designed within an asymmetrical grid with the emphasis on the horizontal, vertical relationship of the geometric shapes and flat roofs. ☑ This follows the Bauhaus belief that symmetrical designs are decorative and do not reflect the real inner function of the building. In FIGURE 2 the asymmetrical design creates variety and breaks the severity of the plain walls and block-like shapes.☑ (10)

Credit any other well-reasoned and substantiated answer.

EASY 3, MODERATE 4, CHALLENGING 3

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2.2 2.2.1 **(Allocate 10 marks)**

(NOTE: Candidates must write in paragraphs and full sentences, without the use of bullets or separate headings. Separate headings are used in the memo to facilitate marking. Learners must also show point for point comparison.)
FIGURE 3: The Arts and Crafts Movement
FIGURE 4: Modernism

SYMMETRY:

FIGURE 3 is reminiscent of the Arts and Crafts furniture design in that the design is symmetrical. ☑ The one side is a mirror image of the other. In FIGURE 4 each circle of the necklace is the same and so when it is worn it will appear as if the design is symmetrical, which does not reflect the tendency towards asymmetry in Modernism. ☑ (2)

APPROACH TO MATERIALS:

Both FIGURE 3 and FIGURE 4 are examples of Truth to Materials because the materials are left undecorated to reveal the beauty of the natural materials. This is typical of the furniture and architectural styles of the Arts and Crafts movement. ☑ In Modernism metals were left undecorated as an extension of the machine aesthetic which is a Bauhaus influence. Metals were polished to show their natural beauty and reflective qualities. It also refers to the Modernist ideal of ôLess is Moreô ☑ (2)

SUBJECT MATTER:

Like Arts and Crafts the jewellery piece in FIGURE 3 is inspired by nature. The shapes are based on fossils, plants and insect cells. ☑ In FIGURE 4 the irregular circular shapes are more geometric and are reminiscent of the geometric shapes used in modernist design. ☑ (2)

LINE:

In FIGURE 3 the organic shapes have a linear quality. Wavy, decorative and curvilinear lines contribute to the rich patterned effect of the piece.☑ There is also a strong horizontal, vertical relationship within the design which creates variety and prevents the design from becoming boring. This relationship can be seen in the horizontal shoulder pieces and the downward thrust of the two verticals that lead the eye away from the upper section of the neckpiece. ☑ Line is therefore one of the major unifying factors within the design. In FIGURE 4 there is no additional/decorative detail, and the emphasis is on circular line, even though it is slightly irregular. The repetition of geometric shapes is typical of Modernism. In FIGURE 4 there is no additional decorative detail and the emphasis is on circular line, even though it is slightly irregular. The repetition of geometric shapes is typical of modernism. ☑ (2)

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CRAFTMANSHIP:

Both FIGURE 3 and FIGURE 4 show the qualities of skilled craftsmanship and design. This was important to both the Arts and Crafts movement and Modernism. ☑ The only difference being that the Arts and Crafts movement believed in the importance of handmade products and Modernism embraced the machine and mass production. In Arts and Crafts the emphasis was on handmade products as opposed to the mass production of Modernism. ☑ (2)

Credit any other well-reasoned answer.

EASY 2, MODERATE 4, CHALLENGING 4

2.3 2.3.1 **(Allocate 6 marks)**

ART NOUVEAU:

Any of the following are correct:

CHARACTERISTICS OF ART NOUVEAU

FIGURE 5 is typical of the Art Nouveau tradition for the following reasons:

- It combines good design with quality craftsmanship.☑
- The chair design makes use of flowing curvilinear line in the backrest and in the one chair arm. This gives the work a feeling of rhythm and movement which moves the eye around the design. ☑ It also breaks the rigidity of the two strong verticals forming the uprights of the backrest.☑
- The chair design incorporates nature into the design by making use of organic shapes. For example the shape of a flower with its curving stalk and leaf form the backrest. ☑
- The design is made up of metals such as copper for the frame and arms of the chair and brass appears to have been used for the flower and leaf. This is reminiscent of the use of the wrought iron designs of Art Nouvea. ☑
- The organic curve of the arm rest and the flower break the symmetry of the chair frame. ☑ (4)

INFLUENCES ON ART NOUVEAU:

FIGURE 5 shows the following influences on Art Nouveau:

- Japanese Art ï This is evident in the use of the flowing line of the plant forms that give the work a decorative feel.☑
- The curved lines crossing each other at the base of the backrest reflect the intertwined ribbon patterns of Celtic stone carving. ☑ (2)

Credit any other well-reasoned answer.

EASY 2, MODERATE 1, CHALLENGING 3

2.3.2 **(Allocate 2 marks)**

EXAMPLE 1: ART NOUVEAU

La PlumeôCalendar☑ by Alphonse Mucha.☑

Credit any other correctly named example and designer.

EASY 2 (2)

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2.3.3 **(Allocate 2 marks)**

ECLECTIC: A style or design movement made up of different ideas from one or more design movementsô☑

AESTHETIC: The term 'aesthetic' concerns our senses and our responses to an object. If something is aesthetically pleasing, it is 'pleasurable' and we like it. Aesthetics involves all of the human senses ï vision, hearing, touch, taste, and smell ï as well as the emotions. ☑
Credit any other correct definitions.

MODERATE 2 (2)

[30]

QUESTION 2	2.1	2.2	2.3	TOTAL
EASY	3	2	4	9
MODERATE	4	4	3	11
CHALLENGING	3	4	3	10
TOTAL	10	10	10	30

QUESTION 3: POPULAR CULTURE

3.1 3.1.1 **(Allocate 3 marks)**

DEFINITION:
Popular culture or pop culture is all around us, represented by the movies, television shows, artists, music, fashion and even vocabulary which is used and accepted by the majority. ☑ Popular culture may differ from country to country. ☑ But there are also international trends and iconic international figures such as musicians, film stars, television stars; or sport personalities which form part of popular culture on a global level. ☑ Popular culture is the accepted culture of the majority of people at any given moment. ☑ Key to the idea of popular culture is the idea of change. ☑ Popular culture can generally be aligned to specific generations. At the moment we refer to the predominant generation as Generation Y. This generation is digitally minded and more environmentally aware.☑ (3)

MODERATE 2, CHALLENGING 1

3.1.2 DISCUSSION OF THE POPULAR CULTURE OF TWO ERAS.

(Allocate 7 marks)

OPTION 1: ARTS AND CRAFTS
With the start of the industrial Revolution huge urban centres were formed where people from many different villages and even countries lived and worked together. ☑ Due to the mixing of popular ideas and objects, certain tastes developed collectively. ☑ Stable, unchanging traditions were replaced by quickly changing ideas that were accepted by the majority. ☑ Designs could now be massed produced by means of the machine and less attention was paid to creating quality designs and craftsmanship. ☑

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This brought about a reaction from a group under the leadership of William Morris who tried to reinstate quality design and craftsmanship and a stricter morality code based on that of the Medieval era. ☑ They looked back to a time when craftsmen belonged to specific guilds so that they could learn the skills required for their craft, as well as a moral code to live by. ☑ It also marked a return to handmade goods and a rejection of mass produced products. ☑

OPTION 2: ART NOUVEAU

One of the main design elements in popular culture during the Art Nouveau period is the depiction of women as sensual creatures of beauty and inspiration. ☑ The world had started to change; women began to be more respected and were given the right to vote. ☑ During the 1800s advertisements featuring women were conservative and restricted. ☑ During this period they became free and rather mysterious. ☑ Alphonse Mucha depicts women in his prints, posters, paintings and theatre set pieces in flowing gowns with long flowing hair.☑ All designs including carved wooden furniture developed a feminine flowing quality. This was seen at all levels, from posters to lamps, wrought iron railings and perfume bottles. ☑ It was a reaction to the prudish Victorian era that was happening in England at that time. ☑ Nudes were celebrated for their beauty as was seen in the work of Rene Lalique. ☑ Art Nouveau eventually affected popular culture throughout Europe and America. ☑ It came to an end around the break out of the first world war. ☑

OPTION 3: ART DECO

After World War 1 popular culture did not have the rebellious quality of pre-war Art Nouveau. ☑ A sense of escapism drove the pop culture of this time. ☑ Jazz clubs became very popular, contributing to this decade being called the ôroaring twentiesô ☑ People wanted to be entertained. ☑ Design of this time also ôescapesôby referring to the ancient past (e.g. Egypt, Greece, Rome, Africa and the Aztec civilisation). ☑ For those who could afford it, escape became a real possibility through travel on cruise liners and by rail. ☑ Glamorous travel and speed led to the use of streamlining in the later Art Deco period. ☑ Female fashion became more formless and rectangular and less feminine. This looser style reflected the general attitude of young women in the 1920s ï no longer bound by their traditional roles. ☑ They were referred to as ôflappersô ☑

OPTION 4: MODERNISM

World War II lasted until 1945 and had a dramatic impact on the social, political and economic landscape.☑ Soldiers returned home to begin new, or rebuild old, relationships and families wanted to have a perfect family life. ☑This need influenced the atmosphere and culture of the 1950s. ☑ Another important aspect was the focus on technology and how it could be used to enhance the quality of life.☑ There was no room for experimentation or rebellion. This era reflects conformity and family orientation.☑ Advertisements, television and radio programmes, fashion and product design all reflected a happy family.☑ Gender roles were stereotyped with women as housewives and men as the breadwinner/ provider and head of his family/ house.☑ Teenagers and young adults were expected to listen to their parents at all times, act in a respectful manner and above all else smile and look happy.☑ The ideal life that people created was however an illusion. By the end of the 1950s young people started rebelling and questioning the values, culture and superficial nature of the world around them.☑ (7)

Credit any other well-reasoned answer.

EASY 3, MODERATE 4, CHALLENGING 3

QUESTION 3	3.1	TOTAL
EASY	3	3
MODERATE	4	4
CHALLENGING	3	3
TOTAL	10	10

SECTION C: CONTEMPORARY, INTERNATIONAL, ENVIRONMENTAL AND SOCIAL DESIGN

QUESTION 4: ENVIRONMENTAL DESIGN

4.1 4.1.1 **(Allocate 4 marks)**

SUSTAINABLE DESIGN
Candidates may argue that the design in FIGURE 1 is sustainable for any two of the following reasons:
It makes use of some low impact materials. The walls of the building are made of locally resourced natural stone.☑
Stone is non-toxic and can be recycled. It also reconnects people back to the environment.☑
The stone walls should have a long lifespan.☑.
Natural materials contribute positively to the health of people.☑
The garden on the roof of the toilet block acts as insulation and will keep the building cool in summer and warm in winter. This will help the dry composting process used in the toilets.☑
Dry composting toilets make use of Bio-mimicry. Bio-mimicry refers to the constant reuse of materials in continuous closed cycles.☑
The use of solar panels as a source of power makes the building more energy efficient. They provide enough energy to power the schoolôs eighty computers.☑
Rainwater is harvested from roofs and paved areas to be used in the garden and for purposes other than drinking. This enables the school to have its own vegetable garden. The use of indigenous plants in the grounds save water. ☑

Candidates may also argue that it is not completely sustainable in that: The covered walkways appear to be made of concrete and steel. ☑ The school is only partially self-sufficient in terms of its energy requirements. The solar panels can only provide enough energy to power the schoolôs computers. ☑ Drinking water is drawn from a borehole which negatively affects the water table. ☑ (4)

Credit any other well-reasoned answer.

MODERATE 2, CHALLENGING 2

4.2 4.2.1 **(Allocate 1 mark)**

The poster in FIGURE 2 addresses the issue of pollution and its effect on wild life and other creatures. The poster shows the stomach contents of a rotting bird which consists of plastic and other man-made debris. The words at the bottom of the poster ñIF YOU DONôT PICK IT UP THEY WILLò implies that death was caused by eating plastic and other man-made debris. ☑ (1)

EASY 1

4.2.2 **(Allocate 2 marks)**

The image of the dead bird fills the space of the poster, forcing the viewer to take notice of what happens when waste is carelessly disposed of. ☑

The message to the viewer is written in a simple sans-serif typeface. Although the size of the lettering is small, it is made noticeable by the fact that it is the same colour as the white feathers of the bird. In this way the viewer connects the statement with the image. ☑ (2)

Credit any other well-reasoned answer.

MODERATE 1, CHALLENGING 1

4.3 **(Allocate 8 marks)**

ONE INTERNATIONAL DESIGNER OR DESIGN COMPANY WHOSE WORK ADDRESSES ENVIRONMENTAL ISSUES.

Learners must write in essay form, but the information in the memorandum is in bullet form for ease of marking.

JULIE BARGMANN (American Landscape Architect): ☑

APPROACH AND AIMS:
She reclaims and restores polluted land masses that have been severely affected by mining or the dumping of rubbish.☑

- The restored sites are called ó*regenerative parks*ô Her projects are known as ó*brownfield reclamation projects*ô (A property that cannot be redeveloped or reused because it is contaminated/polluted by some dangerous substance). ☑
- Subject matter includes abandoned coal mines, closed quarries, unused factories and urban railways.☑
- She leaves evidence of the past history of a site so that people do not forget.☑
- She teaches ó*critical site-seeing*ô which aims at exploring the multiple histories of the site to understand the effects of industrial processes on the site.☑
- She gathers a team of architects, engineers, historians and scientists who each bring their particular skills and vision to the process.☑

She aims to:

- Help the landscape become what it is meant to be, not just to take it back to what it originally was.☑
- Create areas of ó*urban wildernesses* out of abandoned industrial sites.☑
- To transform the waste of a century of manufacturing into something culturally, economically and ecologically productive.☑
- To go beyond disguising the problem with superficial ó*cosmetic*ô improvements, rather to solve the problem at its core. ☑

- To ensure that the restored sites are beautiful, have a function and are accessible to the community. This is based on the idea that design is not good until it has served some purpose. ☑
- To make use of ótransparent remedial schemesôso that people can see the actual workings of the restoration-reclamation process, (e.g. Vintondale). ☑

EXAMPLE: TESTING THE WATERS AT VINTONDALE, (a 45 acre/18,2 hectare park). ☑

- Originally a disused coal mine seriously polluted by Acid Mine Drainage (AMD) as a result of the coal mining process.☑
- The reclamation team for this project was made up of herself, the architect and site photographer, a historian, a hydro-geologist, an artist, earth technologists and project assistants.☑
- The landmass of the park was then carved out to form a passive acid mine drainage (AMD) treatment system for the polluted water.☑
- A series of wetlands was constructed, consisting of four retention basins and spillways, or treatment sections, for the acid polluted water to filter through. ☑
- At each stage of the óTreatment Gardenôthe water becomes more purified and gradually changes colour from its original acidic orange to a pea green. In the fourth stage it becomes a more alkaline green-blue.☑
- Finally it passes through a specially constructed marsh/wetland for a ófinal rinseôon its way back to the local creek. (A creek is a stream that is smaller than river.) ☑
- Evidence of the siteôs former polluted state is evident in different ways. Earthen and planted forms symbolise the former mine buildings. A long plinth of excavated soil and mine refuse is inscribed with black discs recalling Vintondaleôs 152 coke ovens. ☑ (8)

EASY 3, MODERATE 3, CHALLENGING 2

[15]

QUESTION 4	4.1	4.2	4.3	TOTAL
EASY	2		3	5
MODERATE	1	1	3	5
CHALLENGING	2	1	2	5
TOTAL	5	2	8	15

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