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GRADE 10 EXAMINATION
JUNE 2023

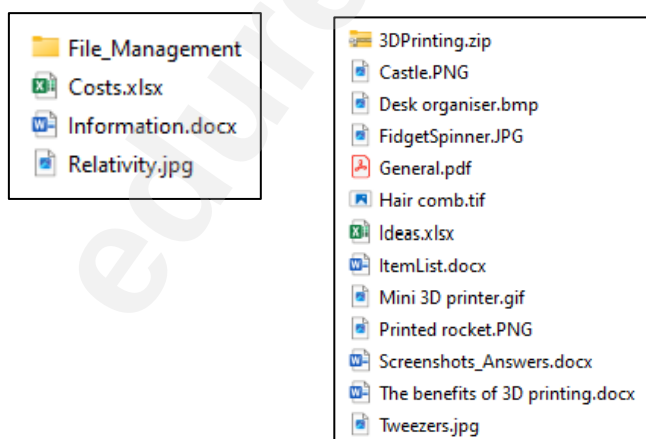
COMPUTER APPLICATIONS TECHNOLOGY: PAPER I (PRACTICAL)

Time: 2 hours

Marks: 100

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

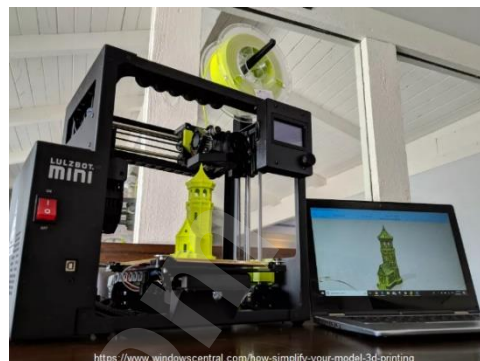
1. This question paper consists of 5 pages. Please check that your question paper is complete.
2. You must answer **ALL** the questions. Please read the entire question before attempting a solution. Only do what is required by the question.
3. Use functions and/or formulas to calculate answers unless otherwise instructed.
4. Do not do more than is required by the question.
5. Take note of the mark allocation to ascertain the complexity of the solution required and the amount of time spent on each question.
6. Save your work regularly.
7. Unless other instructions are given, all word-processing documents should be set up as follows:
 - Measuring units – centimetres (cm)
 - Language – English (South Africa)
 - Page size – A4
 - Margins – 2.54 cm
8. Note that you may use the *offline* help function, if available, in each application.
9. You have been supplied with a folder called **DataFiles10June2023** which contains the following files and folders:



10. At the end of the examination, rename the **DataFiles10June2023** folder to your first name and surname.
-

SCENARIO:

3D printing is an exciting, innovative technology allowing us to create objects from a variety of materials. They can produce a wide range of objects, from simple geometric shapes to complex designs. This process starts with a 3D model created in a computer-aided design (CAD) software application. The 3D printer reads the file and translates it into a series of instructions for the machine to follow. The printer then heats or melts the chosen material, such as plastic, metal, resin, etc., and deposits it in precise layers according to the design. The result is a tangible object that matches the original 3D model. 3D printers have revolutionised the manufacturing industry and have enabled individuals, artists, and businesses to bring their ideas to life in a cost-effective and efficient way.

**QUESTION 1**

Open and work *only* in the folder **File_Management**.

- 1.1 Locate the compressed/zipped folder called **3DPrinting**.
 - 1.1.1 Unzip/extract the folder. The extracted folder should be in the same location as the zipped folder. (1)
 - 1.1.2 Delete the zipped folder. (1)
- 1.2 Working in the **File_Management** folder, do the following:
 - 1.2.1 Change the view of the folder to the **Details** view. (1)
 - 1.2.2 Arrange the files by **Size** in **ascending** order. (2)
 - 1.2.3 Take a screenshot of the ordered files and paste it into the document **Screenshots_Answers.docx**, next to the correct question number. The column headings (Name, Date modified, Type, Size) should be included in your screenshot. (3)
- 1.3 Change the file properties of the document **ItemList.docx** as follows:
 - 1.3.1 Add your name as an author of the document. (1)
 - 1.3.2 Find out the size of the document. Take a screenshot of the answer (Size and Size on disk) and paste it into the document **Screenshots_Answers.docx**, next to the correct question number. (2)
 - 1.3.3 Rename the file **ItemList.docx** to **3DPrintedItems.docx**. (1)
 - 1.3.4 Change the attributes of the file to *Read-only*. (1)
- 1.4 Change the attributes of the file **Ideas.xlsx** to *Hidden*. (1)
- 1.5 Create a new folder for all the images as follows:
 - 1.5.1 Name the folder **Pictures**. (1)
 - 1.5.2 Move all of the images into the new **Pictures** folder. (2)
 - 1.5.3 Change the file type of the image **Fidget spinner.jpg** into a **.png** file. *A warning will pop up about changing a file extension. Continue with the change.* (1)
 - 1.5.4 With the **Pictures** folder open, copy the file path of the folder and paste it into the document **Screenshots_Answers.docx**, next to the correct question number. (2)

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QUESTION 2

Open the document **Information.docx**.

- 2.1 Insert your name in the header of the document, aligned to the right. (2)
- 2.2 Add page numbers to the footer of the document using the **Brackets 1** style. (2)
- 2.3 Using WordArt, insert the heading “3D Printing” at the beginning of the document. (2)
- 2.4 Change the font of the entire document (excluding the WordArt heading) as follows: (3)
- Font type: *Comic Sans MS*
 - Font size: *12 pt*
 - Font colour: *dark blue*
- 2.5 Apply the automatic heading style **3D** to the four underlined headings in the document. (2)
- 2.6 Centre-align the text in the first paragraph only, “With 3D printing ... metals, resins, and ceramics”. (2)
- 2.7 Change the bulleted list under the heading “Some examples of items ...” to a numbered list using the format shown in *Figure 1* below.

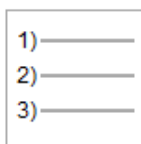


Figure 1

- (2)
- 2.8 Make changes to the paragraph spacing of the numbered list as follows:
- 2.8.1 The line spacing should be *single, 6 pt before, 6 pt after*. (3)
- 2.8.2 Allow a space between paragraphs of the same style. (1)
- 2.9 Add a dotted or dashed page border to the entire document. (2)
- 2.10 Insert a blank page or a page break at the end of the document. (1)
- 2.11 On the new blank page at the end of the document, insert a table by following the instructions below. Refer to *Figure 2* at the end of Question 2.11 to see how your table should look when completed.
- 2.11.1 The table should consist of 1 row and 2 columns. (2)
- 2.11.2 Resize the table to fit the contents automatically. (2)
- 2.11.3 In the first column of the table, do the following: (3)
- Type in the text “Terran 1”.
 - Use the *Text Effects and Typography* feature to apply a yellow or orange-coloured text effect to the text “Terran 1”.
 - Change the font size to *16 pt*.
- 2.11.4 Insert the image **Relativity.jpg** in the second column of the table. (2)
- 2.11.5 Change the borders of the table as follows: (3)
- Use the *double-line* border style.
 - The border colour must be *blue*.
 - The border width must be *2½ pt*.

Your completed table should resemble *Figure 1* below:



Figure 2

- 2.12 Insert a comment on the table which contains the text “The largest 3D object to exist”.
Ensure that you post the comment. Do not resize the table in any way. (3)
- 2.13 Insert a hyperlink at the end of the document, which will take you back to the top of the document. Your hyperlink should display the text “Go back to the top”. (3)
- Save and close the document **Information.docx**.

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QUESTION 3

Open the spreadsheet **Costs.xlsx**.

Work in the **Sheet1** worksheet.

- 3.1 Edit the worksheet details as follows:
- 3.1.1 Rename the worksheet to **RunningCosts**. (1)
- 3.1.2 Change the colour of the worksheet tab to *blue*. (1)
- 3.2 Format the cell range **A1:B1** as follows:
- 3.2.1 Merge the cells in the cell range. (1)
- 3.2.2 Align the heading “Cost of 3D Printing” as follows:
- The horizontal alignment must be to the left.
 - The vertical alignment must be centred. (2)
- 3.2.3 Use a fill colour of *dark blue* in the merged cells. (1)
- 3.2.4 Change the font colour of the heading to *white*. (1)
- 3.2.5 Change the font size of the heading to *18 pt*. (1)
- 3.3 In cell **A3**, format the text “Running costs per hour” to be bold and underlined. (2)
- 3.4 Resize the height of **row 3** to exactly 33.75 pt (90 pixels). (1)
- 3.5 Add borders to the inside and outside of all cells in the cell range **A3:B8**. (2)

3.6 Add functions and/or formulas as follows:

3.6.1 In cell **B8**, use a function to calculate the total hourly costs. Ensure that your answer displays in *Rands*. (2)

3.6.2 In cell **B10**, calculate the running costs for the year, using cells **B8**, **E5** and **E6** in your calculation. *If you did not do Question 3.6.1, use an amount of 6.17 in your calculation instead of the cell reference for cell B8.* Ensure that your answer displays in *Rands*. (3)

Work in the **Sheet2** worksheet.

3.7 Wrap the text in **column A** so that all words are visible. (1)

3.8 Sort the contents of the cell range **A2:B11** according to **column A** in alphabetical order. (2)

3.9 Create a named range called **Printer_prices** for the cell range **B2:B11**. (1)

3.10 Add functions as follows:

Use the named range created in Question 3.9 in your functions; if you were unable to create a named range, use the cell references in your function.

3.10.1 Cell **B12**: The average price of the printers. (2)

3.10.2 Cell **B13**: The cost of the lowest-priced printer. (2)

3.10.3 Cell **B14**: The cost of the highest-priced printer. (2)

3.10.4 Cell **B15**: The number of printers in the table, formatted as a *number*. (2)

3.11 Insert a chart on **Sheet2** using the data in the cell range **A2:B11** as follows:

3.11.1 Use a 3-D clustered column chart. (1)

3.11.2 Change the chart title to "Printer Prices". (1)

3.11.3 Add "Cost" as a Y-axis (vertical) title and "Printer" as an X-axis (horizontal) title. (2)

3.11.4 In the vertical Y-axis, options change the bound minimum to 500 and the major units to 20 000. (2)

3.11.5 Change the fill colour of only the longest column to *red*. (2)

3.12 Add the current date as a field to the left of the header. (2)

Save and close the spreadsheet **Costs.xlsx**. [40]

[TOTAL: 100 MARKS]