



**UCSC**

**University of Colombo, Sri Lanka**

*University of Colombo School of Computing*



**DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY  
(EXTERNAL)**

Academic Year 2024 — 1<sup>st</sup> Year Examination — Semester 1

**IT1306 — Free and Open Source Software for Personal Computing**

*Multiple Choice Question Paper*  
(2 Hours)

**Important Instructions**

- The duration of the paper is **2 Hours**.
- The medium of instructions and questions is English.
- This paper has **40 questions** on **12 pages**. Answer **all** questions.
- All questions are of the **MCQ** (Multiple Choice Questions) type.
- Each question will have **5 (five)** choices with **ONE OR MORE** correct answers.
- This paper consists of 100 marks and all the questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from -1 (All the incorrect choices are marked & no correct choices are marked) to +1 (All the correct choices are marked & no incorrect choices are marked). However, **the minimum mark per question would be zero**.
- Answers should be marked on the **special answer sheet** provided.
- Note that questions appear on both sides of the paper. If a page or part of a page is not printed, please inform the supervisor/invigilator immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**
- Any electronic device capable of storing and retrieving text, including electronic dictionaries, smartwatches, and mobile phones, is not allowed.
- Calculators are **not** allowed.
- *All Rights Reserved*. This question paper can NOT be used without proper permission from the University of Colombo School of Computing.

1). Which of the following is/are example(s) of Proprietary Software?

- |                      |                        |         |
|----------------------|------------------------|---------|
| a). Windows          | b). Mozilla Firefox    | c). Git |
| d). Microsoft Office | e). Adobe Flash Player |         |

2). Which of the following is/are example(s) of System Software?

- |   |
|---|
| a). Web Browsers                          |
| b). Operating systems                     |
| c). Antivirus Software                    |
| d). Drivers that control hardware devices |
| e). Database Management Systems           |

3). What is the Keyboard Shortcut to get the Terminal in Ubuntu environment?

- |                     |                    |                            |
|---------------------|--------------------|----------------------------|
| a). Ctrl + Alt + N  | b). Alt + F4       | c). Shift + Ctrl + Alt + T |
| d). Shift + Alt + T | e). Ctrl + Alt + T |                            |

4). Which of the following command(s) can be used to Display the current working directory in Ubuntu Command Line?

- |           |              |         |
|-----------|--------------|---------|
| a). pwd   | b). c dir    | c). cwd |
| d). mkdir | e). cd print |         |

5). Consider the following commands executed in Ubuntu Command Line:

- I. mkdir Folder1 Folder2 Folder3
- II. mkdir -c Folder1 Folder2 Folder3
- III. mkdir -p Folder1/Folder2/Folder3
- IV. mkdir Folder1/Folder2 Folder2/Folder3

Which of the above command(s) will create a directory named Folder1, and inside Folder1, a Folder2, and inside Folder2, a Folder3?

- |                         |                               |                       |
|-------------------------|-------------------------------|-----------------------|
| a). (II) Only           | b). (III) Only                | c). (I) and (II) Only |
| d). (II) and (III) Only | e). (I) , (II), and (IV) Only |                       |

6). Which of the following Word processing application(s) can be categorized as free and open source Software?

- |                           |                  |                        |
|---------------------------|------------------|------------------------|
| a). Word Star             | b). Word Perfect | c). LibreOffice Writer |
| d). OpenOffice.org Writer | e). Google Docs  |                        |

7). Consider the following statements.

- I. Abiword was the first word processing application designed for personal computers.
- II. OpenOffice.org Writer is compatible only with open-source operating systems such as Linux.
- III. One key advantage of word processing over a typewriter is the ability to edit a document without retyping it entirely.

Which of the above statement(s) is / are true regarding word processing applications?

- |                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| a). (I) Only           | b). (III) Only           | c). (I) and (II) Only |
| d). (I) and (III) Only | e). (I), (II), and (III) |                       |

8). Which shortcut key is used to redo an action in LibreOffice Writer?

- |              |              |              |
|--------------|--------------|--------------|
| a). Ctrl + Y | b). Ctrl + Z | c). Ctrl + U |
| d). Ctrl + R | e). Ctrl + D |              |

9). In relation to LibreOffice Writer, match the terms in the first column with the definitions in the second column.

Column 1		Column 2	
(i)	Status bar	(A)	Display the margin and tab settings.
(ii)	Work space	(B)	Displays icons which execute commands used most frequently.
(iii)	Title Bar	(C)	Displays information about current location in the text.
(iv)	Ruler	(D)	Displays the program name and current file.
		(E)	Area in which you edit the document.

- |  |
|--|
| a). (i) - (B), (ii) - (D), (iii) - (C), (iv) - (E) |
| b). (i) - (C), (ii) - (E), (iii) - (D), (iv) - (A) |
| c). (i) - (B), (ii) - (D), (iii) - (A), (iv) - (E) |
| d). (i) - (C), (ii) - (E), (iii) - (D), (iv) - (B) |
| e). (i) - (D), (ii) - (E), (iii) - (C), (iv) - (A) |


10). Which of the following statement(s) is/are true about cross-referencing in LibreOffice Writer?

- a). Cross-references allow to jump to specific text passages in a single document.
- b). Cross-references consist of a target and a reference that are inserted as fields in the document.
- c). Cross-references cannot be applied for graphics, drawing objects, OLE objects and tables even if they have a caption.
- d). Cross-references cannot be inserted manually and require the use of macros or scripting.
- e). Cross-referencing is not supported in LibreOffice Writer when the document is exported to PDF format.

11). What happens when you select "Print" in a mail merge document prepared using LibreOffice Writer and LibreOffice Calc?

- a). Only the template document is printed.
- b). All data in the source is printed as raw text.
- c). Only the first entry in the data source is printed.
- d). An error message appears if no printer is connected.
- e). The document prompts you to merge the data with the template before printing.

12). What formatting technique(s) in LibreOffice Writer is/are used to format the content in "Paragraph 01" to make it appear as in "Paragraph 02"?

  
BIT is the Bachelor of Information  
Technology degree programme introduced  
by the University of Colombo School of  
Computing (UCSC), in 2000. The UCSC  
conducts examinations leading to the first-ever  
External Degree in Information Technology (IT)  
in Sri Lanka.

*Paragraph 01*

BIT is the Bachelor of Information  
Technology degree programme introduced  
 by the University of Colombo  
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to the first-ever External Degree in Information  
Technology (IT) in Sri Lanka.

*Paragraph 02*

- a). Alignment
- b). Outline Level
- c). Text Wrapping
- d). Macros
- e). Line Spacing

13). Consider the following text in a LibreOffice Writer document.

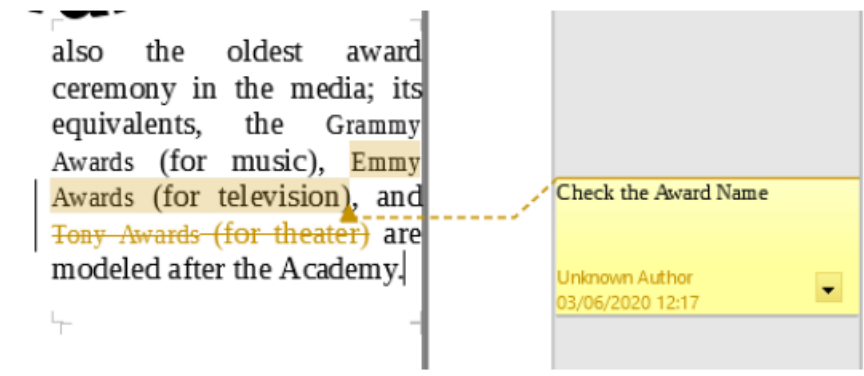
Name ;Marks  
Nadun ;64  
Nayanajith ;75  
Kapila ;87  
Yehan ;67

Identify the correct sequence of steps to be performed in order to convert the above text into a table.

- A. Select the option "Text to Table" from Table > Convert
- B. Select the text
- C. Open table Properties dialog box
- D. Select the "other" radio button and type ; in the "Separate text at" frame
- E. Click OK

- |             |             |             |
|-------------|-------------|-------------|
| a). B,C,D,E | b). B,A,D,E | c). A,B,D,E |
| d). C,B,D,E | e). C,D,E,B |             |

14). The following LibreOffice Writer document segment highlight(s),



- |                 |                     |               |
|-----------------|---------------------|---------------|
| a). An endnote  | b). A footnote      | c). A comment |
| d). A hyperlink | e). A grammar error |               |

15). Which of the following statement(s) is/are true about Synonyms and Thesaurus in LibreOffice Writer?

- |  |
|--|
| <ul style="list-style-type: none"><li>a). You can access a short list of synonyms by right-clicking on a word.</li><li>b). Thesaurus gives a more extensive list of alternative words and phrases.</li><li>c). Thesaurus requires an internet connection to function in LibreOffice Writer.</li><li>d). Synonyms and Thesaurus are the same and function identically in LibreOffice Writer.</li><li>e). LibreOffice Writer supports the Thesaurus feature, but not Synonyms.</li></ul> |
|--|

16). Consider the following spreadsheet segment in a LibreOffice Calc worksheet:

	A	B	C
1	<b>Value1</b>	<b>Value2</b>	<b>Formula Result</b>
2	50	2	
3	20	0	
4	30	N/A	
5	0	5	
6			

If you divide "Value1" by "Value2", what are the possible results in the "Formula Result" column for cells C2, C3, C4, and C5?

- a). C2 = 25, C3 = 20, C4 = 30, C5 = 0
- b). C2 = 50, C3 = 20, C4 = 30, C5 = 0
- c). C2 = 25, C3 = #DIV/0, C4 = #VALUE, C5 = #DIV/0!
- d). C2 = 25, C3 = 0, C4 = N/A, C5 = #DIV/0!
- e). C2 = 25, C3 = #DIV/0! , C4 = #VALUE! , C5 = 0

17). Consider the following formula in LibreOffice Calc:

=CONCAT ( "R", RIGHT (A6, 6) )

Which of the following output(s) would result if the value in cell A6 is 2307001?

- a). R6
- b). R307001
- c). R230700
- d). R2307001
- e). #ERROR!

18). Consider the following formulae in LibreOffice Calc:

- i. =ROUND (12.45, 0)
- ii. =ROUNDUP (12.45, 0)
- iii. =ROUNDDOWN (12.45, 0)

What will be the output of each formula?

- a). 12, 12, 12
- b). 12, 13, 12
- c). 13, 13, 12
- d). 12, 12, 13
- e). 13, 13, 13

19). Which of the following operator(s) is/are Arithmetical operators in LibreOffice Calc?

- |       |       |       |
|-------|-------|-------|
| a). / | b). \ | c). % |
| d). > | e). = |       |

20). Answer the following question based on the following data table created using LibreOffice Calc.

	A	B	C	D
1				
2		Final Mark	Assignment	40.00%
3			Final Paper	60.00%
4				
5	Index	Paper Mark	Assignment Mark	Final Mark
6	2402001	78	80	78.8
7	2402002	60	65	62
8	2402003	55	70	61
9	2402004	90	100	94

Suppose D2:D3 is formatted using the percent number format and the Final Mark is calculated based on the criteria listed on cells B2:D3.

Which of the following expression(s) should be inserted in D6 to calculate the final mark for "2402001", and then allow the formula to be applied to the rest of the rows by dragging it down from D6?

- |   |
|---|
| <p>a). =B6*60/100 + C6*40/100</p> <p>b). =B6*\$D\$3 + C6*\$D\$2</p> <p>c). =B6*0.6 + C6*0.4</p> <p>d). =B6*D3 + C6*D2</p> <p>e). =\$B\$6*\$D\$3 + \$C\$6*\$D\$2</p> |
|---|

21). Consider the following error description.

"The column, row, or sheet for the referenced cell is missing".

Which of the following LibreOffice Calc Error Code(s) is/are described by the above error description?

- |            |             |             |
|------------|-------------|-------------|
| a). #NAME? | b). #VALUE! | c). #ERROR! |
| d). #REF!  | e). #NUM!   |             |

- 22). The "Average" column in the LibreOffice Calc worksheet below displays the average marks for three subjects for each student. Which of the following formulae can be used to calculate the average in cell F2?

	A	B	C	D	E	F
1	Name	History	Science	English	Total	Average
2	S1	45	65	52	162	54
3	S2	76	89	90	255	85
4	S3	66	80	67	213	71
5	S4	36	42	51	129	43

- a). =AVERAGE(E2)                      b). =B2+C2+D2/ 3                      c). =SUM(B2:D2)/3  
d). =AVERAGE(B2:D2)                  e). =AVG(B2:D2)

- 23). Which of the following(s) is/are true regarding LibreOffice Calc?

- a). LibreOffice Calc does not support using named ranges in formulas.  
b). Formats in one cell can be copied to another by using the format paintbrush.  
c). The cell/range name is shown by a small reddish triangle on the top right corner of the cell.  
d). Pivot table is a method used to show how a large amount of data is interactively combined and compared.  
e). Conditional formatting highlights a range of cells with different formatting, such as font style or color, borders, cell background color, and so on.

- 24). Which of the following statement(s) is/are true about cell references in LibreOffice Calc?

- a). An absolute cell reference changes when the formula is copied to another location.  
b). A relative reference is indicated by a dollar sign before the row or column, such as \$A\$1.  
c). A relative cell reference remains constant when the formula is copied to another location.  
d). A mixed cell reference uses both absolute and relative references for the row and column.  
e). A formula containing an absolute reference will always refer to the exact same cell, no matter where it is copied.



25). Consider the following data extracted from a LibreOffice Calc worksheet.

	A	B
1	10	5
2	20	10
3	10	15
4	30	5
5	10	10
6		
7		
8		

What would be the output if you enter the formula `=COUNTIFS(A1:A5, 10, B1:B5, ">5")` in "B7"?

- |       |             |       |
|-------|-------------|-------|
| a). 1 | b). 2       | c). 6 |
| d). 7 | e). Err:511 |       |

26). What is the default file format of LibreOffice Base?

- |          |          |           |
|----------|----------|-----------|
| a). .obx | b). .odb | c). .docb |
| d). .odt | e). .odx |           |

27). Which of the following statement(s) is/are true about 'Primary Key' in LibreOffice Base?

- a). It may contain duplicate values.
- b). It must always contain a value.
- c). It should always be ignored when creating a table in a database.
- d). It can either be a normal attribute or auto generated by the DBMS.
- e). It is a field or combination of fields which uniquely identifies the record in a table.

28). Which of the following queries can be used to change only the name of a table.

- a). `ALTER TABLE "Table_name" RENAME TO "new_table_name";`
- b). `ALTER TABLE RENAME "Table_name" TO "new_table_name";`
- c). `RENAME TABLE "Table_name" UPDATE INTO "new_table_name";`
- d). `ALTER TABLE "Table_name" RENAME AS "new_table_name";`
- e). `MODIFY TABLE "Table_name" UPDATE INTO "new_table_name";`

**Answer the Questions 29 and 30 referring to the following details.**

Assume a student is working with a database named "LibraryDB" in LibreOffice Base. The database contains a table named "Books" with the following fields:

BookID  
Title  
Author  
Genre  
PublishYear  
Availability

**29).** Consider the following query wrote by the student.

```
SELECT "BookID", "Title ", "PublishYear" FROM "Books" LIMIT 5;
```

Which of the following statement(s) is/are true about the above query?

- a). The query retrieves three specific columns and limits the number of rows to five.
- b). Only the first five records are inserted into the "Books" table.
- c). The query retrieves all records from the "Books" table without any limits.
- d). The query limits the display to only 5 columns from the "Books" table.
- e). The query prints the first 5 characters from each Data records.

**30).** The student is asked to find all books in the genre "IT" that were published after the year 2000. Also the student is provided the options below. Select the correct query or queries that fulfill this requirements.

- a). `SELECT * FROM Books WHERE Genre = 'IT' AND PublishYear > 2000;`
- b). `SELECT * FROM Books WHERE PublishYear > 2000 AND Genre = 'IT';`
- c). `SELECT * FROM Books WHERE Genre = 'IT' OR PublishYear = 2000;`
- d). `SELECT Title FROM Books WHERE Genre = 'IT' , PublishYear > 2000;`
- e). `SELECT BookID, Title, Author, Genre, PublishYear, Availability FROM Books WHERE Genre = 'IT' AND PublishYear > 2000;`

**31).** Which of the following data type(s) is/are supported by LibreOffice Base?

- |             |             |             |
|-------------|-------------|-------------|
| a). Integer | b). Decimal | c). Boolean |
| d). Date    | e). Double  |             |

**32).** Which of the following option(s) is/are used to apply a transition effect between slides?

- |                       |                       |                  |
|-----------------------|-----------------------|------------------|
| a). Slide Show        | b). Insert Transition | c). Slide Design |
| d). Slide Transitions | e). Slide Layout      |                  |

**33).** Which of the following shortcut key(s) can be used to add a new slide in LibreOffice Impress?

- |                      |                          |              |
|----------------------|--------------------------|--------------|
| a). Ctrl + N         | b). Ctrl + M             | c). Ctrl + S |
| d). Ctrl + Shift + M | e). Ctrl + Shift + Enter |              |

**34).** Which of the following is/are option(s) for customizing slide transitions in LibreOffice Impress?

- |                                    |
|------------------------------------|
| a). Slide transition duration      |
| b). OLE Objects                    |
| c). Slide transition style         |
| d). Background color               |
| e). Advance slide after a duration |

**35).** Which of the following statement(s) is/are correct regarding a presentation created using LibreOffice Impress?

- |   |
|---|
| a). The presentation can be protected with a password.  |
| b). Slides can be moved individually or in groups from one location to another.                                   |
| c). LibreOffice Impress does differentiate between text and image placeholders.                                   |
| d). Date and time can be added to one or more slides and will update automatically.                               |
| e). A presentation should contain at least one custom animation in order to save it as a multimedia presentation. |

**36).** Which of the following is/are true about GIMP?

- |  |
|--|
| a). GIMP has no support for plugins or extensions.   |
| b). It is a standard application in most GNU/Linux distributions.  |
| c). It is freely available software only for Linux operating system.   |
| d). It does not provide users with the freedom to access and alter the source code that makes up computer programs.                  |
| e). It is suitable for a variety of image manipulation tasks, including photo retouching, image composition, and image construction. |

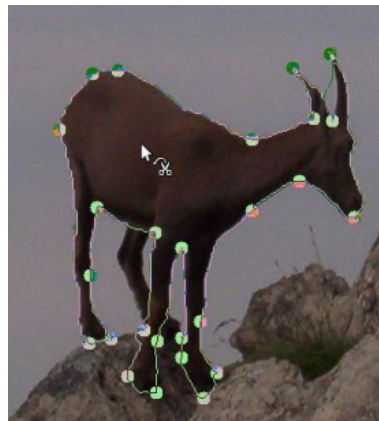
37). Which of the following is/are considered as "Transform tools" in the GIMP tool box?

- |           |                 |           |
|-----------|-----------------|-----------|
| a). Shear | b). Crop        | c). Scale |
| d). Flip  | e). Perspective |           |

38). In GIMP, which of the following tool(s) will allow one to create complex selections called Bezier Curves?

- |                       |                           |                     |
|-----------------------|---------------------------|---------------------|
| a). The Healing tool  | b). The Paths tool        | c). The Pencil tool |
| d). The Airbrush tool | e). The Fuzzy Select tool |                     |

39). Consider the following image:



Which of the following selection tool(s) is/are used in the above image?

- |                          |                       |                     |
|--------------------------|-----------------------|---------------------|
| a). Python               | b). Fuzzy selection   | c). Select By Color |
| d). Intelligent Scissors | e). Ellipse Selection |                     |

40). What is the correct expression to fill in the blank in the following sentence.

"The area where you work or edit in GIMP is known as \_\_\_\_\_."

- |             |                  |           |
|-------------|------------------|-----------|
| a). Channel | b). Work Sheet   | c). Slide |
| d). Palette | e). Image Window |           |

\_\_\_\_\_ \*\*\*\*\* \_\_\_\_\_