

QUARTERLY EXAMINATION**SEPTEMBER 2016**

(held on 16/9/2016)

COIMBATORE DISTRICT**HIGHER SECONDARY – SECOND YEAR****COMPUTER SCIENCE**

Marks : 150

Duration : 3:00 Hrs

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Part – I Choose the most appropriate answer.**75 x 1 = 75**

Q No	Ch	Answer	Q No	Ch	Answer	Q No	Ch	Answer
1	D	Insertion Point	26	D	Datum	51	D	Inheritance
2	A	Ctrl + A	27	D	Form	52	A	Bjarne Stroustrup
3	D	Edit -> Cut	28	B	Form	53	B	Pointer Variable
4	B	Fajita	29	B	Default Filter	54	A	96 Bytes
5	C	Hanging Indent	30	C	Hierarchical	55	A	3
6	A	Delete	31	B	Three	56	A	=
7	C	Auto Correct	32	B	Primary Key	57	D	do .. while();
8	A	F7	33	A	Spread Sheet	58	D	<<
9	C	Tab	34	D	256	59	A	cin
10	A	Table -> Delete -> Table	35	B	Graphic Interchange Format	60	B	-128 to 127
11	D	1.00 "	36	B	Vector Graphics Card	61	C	Control Structure
12	C	Portrait	37	A	.wmv	62	C	Tokens
13	A	Excel	38	A	Audio Interchange File Format	63	A	Local
14	B	Format -> Page	39	A	MMS	64	D	Call by reference
15	C	63 , 254	40	C	Sound Forge	65	A	Functions
16	A	SUM	41	B	Object Based	66	A , C	(A) Array or (C) Function
17	C	=	42	B	Slideshow -> Show / Hide slide	67	B	Array
18	B	Number	43	A	Slide Sorter	68	C	20
19	D	=	44	C	Escape	69	A	Misplaced else
20	A	Cell	45	C	Picture	70	A	int
21	C	!	46	D	Templates and Documents	71	C	Function Prototype
22	D	MM/DD/YY	47	B	Normal	72	B	29
23	A	20	48	C	Edit -> Navigator	73	C	break
24	D	Record	49	D	Class	74	C	strcmp()
25	B	Database Management System	50	B	Polymorphism	75	D	Zero

Part – II Answer any twenty questions in one or two sentences each.**20 x 2 = 40**

QNo	ANSWER	Marks
-----	--------	-------

76 Word Processing

- The term word processing refers to the activity carried out using a computer and suitable software to create, view, edit, manipulate, transmit, store, retrieve and print documents.

2

77 Highlighting the Text

- Highlighting can be used to call attention to key ideas or pointers in a document.
- These highlighted sections are used to review or find the key points in the document.
- In Star writer document, the user can highlight the required text using **Highlighting Icon**.
- To remove the highlighting, select the text already highlighted and selects the **No Fill** from the colour palette.

½

½

½

½



LITL #116090

- 78 **Change the Margin using Ruler :** ½
- Margins are nothing but the edges of the page.
 - If the user is not having the exact value for the margins he can use the rulers.
 - Following steps are used to change the margin :
 - If the ruler is not visible, click View-> Ruler option is to enable the ruler.
 - The mouse pointer is then moved in between the gray and white area of the ruler.
 - When the pointer is in proper position, the mouse pointer changed as double headed arrow.
 - Now, click mouse left button and drag to a new location.
 - When release the button, the margin will be changed to the new location.
- 79 **Electronic Spreadsheet :** 2
- An electronic spreadsheet is a worksheet used in a computer to create and quickly perform "What if" analysis of interrelated columnar data in workspaces.
- 80 **Differentiate between Cell Addressing :**
- | <u>RELATIVE CELL ADDRESSING</u> | <u>ABSOLUTE CELL ADDRESSING</u> | |
|--|--|------------------|
| <ul style="list-style-type: none"> • Default cell addressing • Cell addresses can be change while copying • No special symbol required • Example : =sum(A1:B1) | <ul style="list-style-type: none"> • Alternative cell addressing • Cell addresses cannot change while copying • Special symbol '\$' required for each cell address • Example : =sum(\$A\$1:\$B\$1) | ½
½
½
½ |
- 81 **Range :** 1
- A continuous group of cells in a worksheet is called a **Range**
 - A range address is the address of the first cell in the range, followed by a colon, followed by the address of the last cell in the range.
 - For example, the cells, G1, G2,G3, G4 and G5 can be called G1:G5.
- 82 **Database :** 2
- A database is a repository of collections of related data or facts.
- 83 **Differentiation between Query and Filter :** (Ant 4 points are enough)
- | <u>QUERY</u> | <u>FILTER</u> | |
|--|--|------------------|
| <ul style="list-style-type: none"> • Queries are special views. • Queries are written by SQL. • There is no type in queries. • Queries can be saved later. • Queries cannot hide the records. | <ul style="list-style-type: none"> • Filter is built-in tool. • No special language required. • There are 2 types of filter. (Auto and Standard) • Filter cannot be saved. • Filter can hide the records from our view. | ½
½
½
½ |
- 84 **Multimedia :** 2
- Multimedia is a computer-based presentation technique that incorporates text, graphics, sound, animations, and video elements.
- 85 **Steps to invoking to creating 3-D animation:** 2
- There are 3 essential steps to creating 3D animation.
 - Namely, they are, (1) Modeling (2) Animating and (3) Rendering
- 86 **Sampling :** 2
- The conversion of analog sound waves to a digital format is called Sampling.
- 87 **Views of a presentation :** 2
- There are 5 types of presentation views available in Star Office Impress.
 - Namely, they are, (1) Normal (2) Outline (3) Notes (4) Handout and (5) Slide Sorter
- 88 **Uses of Master Slide :** 2
- A master slide determines the text formatting style for title, outline and the background design for individual slides, or for all of the slides in a presentation.



89 **Object :**

- An object is a group of related functions and data that serves those functions. 1
- An object is a kind of a self-sufficient “subprogram” with a specific functional area. 1

90 **Encapsulation :**

- The mechanism by which the data and functions are bound together within an object definition is called as ENCAPSULATION. 2
- This Encapsulation is one of the essential technique in OOP used to derive Class and Objects.

91 **Tokens :**

- The basic types are collectively called as Tokens. 1
- A token is the smallest individual unit in a program. 1

92 **Variable :**

- Variables are memory boxes that can hold values or constants. 1
- Which identifier changes it's values often during the execution of the program is called as variable
- Generally, identifiers may also call as variables.

• **For example :**

```
void main()
```

```
{
```

```
int a=10, b=10;
```

```
cout << "\n a = " << a;
```

```
cout << "\n b = " << b++;
```

```
}
```

From the given snippet, identifier 'a' is constant and identifier 'b' is variable.

93 **Types of Unary Operators :**

- Unary operators require one operator and one operand.
- For example, +a, -a, ~a, ++a etc.,

Operator	Meaning	Usage	Example
+	Unary Plus	Negation	+ a
-	Unary Minus	Negation	- a
&	Ampersand	Address of	& a
!	Exclamation	Logical NOT	! a
*	Indirection	Pointer	* a
~	Tilde	Bitwise	~ a
++	Plus Plus	Increment	++ a
--	Minus Minus	Decrement	-- a

94 **Type Cast :**

Type cast refers to the process of changing the data type of the value stored in a variable at runtime

Syntax : (data type) <variable / value> or data type (variable / constant) . 1

Example : if float a = 6.5; int b = 3; cout << int(a) / b; then output will be 2. 1

if int a = 6; int b = 3; cout << float (a / b); then output will be 2.0

95 **Continue Statement :**

- The continue statement forces the next iteration of the loop to take place.
- Any codes beyond to the statement 'continue' will be skipped by the compiler. 2

96 **Syntax of if..else statement :**

```
if ( condition )
```

```
{
```

```
action block of TRUE ;
```

```
}
```

```
else
```

```
{
```

```
action block of FALSE ;
```

```
}
```



97 **Advantages of Functions :**

- Functions are advantageous as they
 - Reduce the size of the program.
 - Induce reusability of code.

1
198 **Scopes of Variables :**

- Scope refers to the accessibility of a variable.
- There are four types of scopes in C++.
- Namely, They are: (1) Local scope (2) Function scope (3) File scope and (4) Class scope

1
199 **Array :**

- An array in C++ is a derived data type that can hold several values of the same type.
- An array is a collection of variables of the same type that are referenced by a common name.

Types of Array :

- Arrays are of two types.
 - One dimensional: comprising of finite homogenous elements. Ex : int num [10] ;
 - Multi dimensional: comprising of elements, each of which is itself a 1-D array. Ex : int num [2][2];

1
1100 **String Manipulation Functions :****(1) strlen()****Syntax** : strlen(string);**Usage** : This string function is used to return the number of characters stored in the string.**Example** : if char name[10]="srkvsshss"; means, the command strlen(name); will return 9.

1

(2) strcpy ()**Syntax** : strcpy (target string , source string);**Usage** : This string function is used to copy the content from source string to target string.**Example** : if char name1[10]="srkvsshss"; and char name2[10]="\0"; means, the command strcpy(name2 , name1); will return name1="srkvsshss" and also name2="srkvsshss".

1

PART – III ANSWER ANY SEVEN QUESTIONS ONLY.**7 X 5 = 35****NOTE :** You may draw icons, toolbars, if necessary. (Draw the big dialog boxes are not necessary)

QNo	ANSWER	Marks
101	<u>Find and Replacing the given text</u> Purpose : Using this tool we can able to find the error words and replace them by correct words. Procedure : <ul style="list-style-type: none"> • To Find and Replace Text, Choose Edit -> Find & Replace. • The Find & Replace dialog box appears on the screen. • In the Search for box, type the text that we want to find and in the Replace with box, enter the word to be replaced. • Click Find button to start the search. • When click Replace, Star Office Writer will replace the first found occurrences of the searched text. • When click Replace All, Star Office Writer will replace all found occurrences of the searched text. • To skip the found text and to continue the search, click Find again. • Click Close when finished the search. 	1 1 1 1 1 1
102	<u>Check spelling after the entire document is typed:</u> Purpose : The documents should be prepared without any spelling mistakes. For this purpose Star Office Writer includes a built-in dictionary and spell-check program. In the document, the spelling can be checked after the document is typed. Procedure : <ul style="list-style-type: none"> • Click Tools -> Spelling -> Check or click spell check  icon or F7 function key. • Spell check dialog box appears on the screen. 	1 1



- **Not in dictionary** text area displays the misspelled word and the **Suggestions** list displays any alternative spellings. 1
- Click **Ignore once**, to skip current occurrence but stop on the next one. 1
- Click **Ignore All**, to skip all occurrences of this word. 1
- Click **Change** button is clicked, to change the current occurrence.
- Click **Change All** button to replace all occurrences of the word.
- If none of the replacements is correct, correction can be made manually in the **Not in dictionary** text area.
- **Add** button is clicked to add the word to the dictionary.
- Click **Close** when finished the spell check.

103 **Table Formatting Toolbar :** (any 10 icons are enough)

- **Purpose :** The toolbar contains various formatting functions related to the table. 1
Once a click is made inside a table a floating toolbar for tables appears on the screen.
If not visible, enable it by clicking, **View -> Toolbars -> Table.**

• **Toolbar icons :**

Table		Table - Fixed	½
		Table Fixed, Proportional	½
		Table - Variable	
Cells		Merge Cells This icon is used to combine two or more cell into a single cell.	½
		Split Cells This icon is used to split a cell into two or more cells.	½
Row / Col		Optimize Clicking on this icon displays a pop-up menu with options like Space columns equally, Space rows equally, Optimum row height and Optimum column width.	
		Inserting Row This icon is used to insert a row below the current row.	½
		Inserting Column This icon inserts a column to the right of the current column.	½
		Delete Row This icon deletes the current row from the table.	
		Delete Column This icon deletes the current Column from the table.	
Line / Border		Borders This icon displays a floating toolbar with different border option for the table.	½
		Line Style This icon is used to choose the style of line to be used for the border.	½
		Border Colour Clicking on this icon it displays a palette of colours for different borders of the table.	

104 **Inserting Functions in Star Office Calc :**

- **Purpose :** Star Office Calc has a wide variety of built-in functions to perform frequent calculations. 1
Functions are predefined formulas.

Inserting Functions :

- Click **Insert -> Function** (or) Click **Ctrl + F2** (or) click  **Insert Function** icon 1
- **Function wizard dialog box** appears on the screen.

Examples:

Example 1 : To find summation of given range using **SUM() function.** 1½

- To find summation using formula, type a range of values on **A1:A5**.
- Click on **A6** and make that as active cell.
- Click  **Insert Function** icon
- **Function Wizard Dialog Box** appears on the screen.
- Using mouse, click **Functions** tab.
- Using mouse, choose **Mathematical** under **Category** title.
- All formulas related to Mathematical will be filler on **Function** list.
- Using mouse, scroll down and double click on the function **SUM**.
- A **small description** will be displayed on the **right side** of the dialog box.
- On the title **number1**, type the range as **A1:A5**



- Under **Formula** text box, a formula will be displayed as **=SUM(A1:A5)**
- Finally click **OK button**.
- Now the summation will be displayed on the active cell **A6**.

Example 2 : To find square root of the given cell value using **SQRT()** function.

- To find square root using formula, type a value on **A1**.
- Click on **A2** and make that as active cell.
- Click $f(x)$ **Insert Function icon**.
- **Function Wizard Dialog Box** appears on the screen.
- Using mouse, click **Functions tab**.
- Using mouse, choose **Mathematical** under **Category** title.
- All formulas related to Mathematical will be filler on **Function** list.
- Using mouse, scroll down and double click on the function **SQRT**.
- A **small description** will be displayed on the **right side** of the dialog box.
- On the title **number**, type the cell value as **A1**.
- Under **Formula** text box, a formula will be displayed as **=SQRT(A1)**
- Finally click **OK button**.
- Now the square root will be displayed on the active cell **A2**.

105 **Insert Object Tool Bar :**

Purpose : Star Calc provides **Insert Object Tool** for inserting third party objects with spread sheets. 1

For this purpose, click **View -> Toolbars -> Insert Object**. 1

An **Insert Object Toolbar** will be appeared on the screen.

Toolbar Icons :

1. Insert Chart Icon
2. Insert Formula Icon
3. Insert Floating Frame Icon
4. Insert Movie and Sound Icon
5. Insert OLE Object Icon
6. Insert Applet Icon



- | | | |
|-------------------------------|--|-----|
| • Insert Chart Icon | This icon is used for presenting the data in the worksheet in from of charts. | 1/2 |
| • Insert Formula Icon | This icon is used for inserting a formula in the worksheet to do some calculation. | 1/2 |
| • Insert Floating Frame Icon | This icon provides to generate a scrolling screen within a worksheet. | 1/2 |
| • Insert Movie and Sound Icon | This icon is used to insert sound or video files into a worksheet. | 1/2 |
| • Insert OLE Object Icon | This icon is used to insert objects from other applications in a worksheet. | 1/2 |
| • Insert Applet Icon | This icon is used to import Applets written in Java programs into the worksheet. | 1/2 |

106 **Manipulation of a Database :** (explanation of any 5 titles are enough)

- Manipulation of Database are in the following ways :
 - Searching - The process to select a desired specific data from a database. 1
 - Sorting - The process of arranging the data in a table in some order. 1
 - Merging - The process of joining data from two or more tables of the same or different databases. 1
 - Performing Calculations on data - Do any kind of arithmetic calculations on the data stored in the database. 1
 - Filtering - The process of a way of limiting the information that appears on screen. 1
 - Editing the database - The process of performing corrections and calculations on the existing data on the database.
 - Report Generation - The process of generating any desired report, from the data of the database.

107 **Process of Report Generation :**

Purpose :

A report is printed information that is assembled by gathering data based on user supplied criteria. 1

Reports are list of records in a customized format for specific purposes.



Method of Creating Reports :

- To create a report, right click on Reports in the <Database> pane.
- Then click 'Use Wizard to Create Report'.
- Report wizard appears on the screen.
- There are 6 steps available to generate reports.
- Report Wizard window displays a list of available tables and queries.
- Most of the reports are created by using queries.
- Select the table or query we want.

Step:1

- Fields of Selection window appears on the screen.
- A list of fields from the selected table or query.
- Select the fields to be included in the report by using the > or >> buttons.
- Click on the Next button.

Step:2

- Next, a Labeling fields window appears with the field and Label.
- Modify the labels for the corresponding fields, if we want.
- Click on the Next button.

Step:3

- The Grouping window is displayed on the screen.
- This window is used to specify the fields based on which the records can be grouped together.
- Click on the Next button.

Step:4

- Then, the Sort Options window will display on the screen.
- Here the sort criteria, if any, can be specified.
- Click on the Next button.

Step:5

- The Choose Layout window will display on the screen.
- Here we can select the Layout of Data, Layout of Headers and Footers and Orientation options
- Click on the Next button.

Step:6

- The Create Report window is displayed on the screen.
- Here, we can choose the report as Static or Dynamic.
- The user also has the choice of either using the Report immediately or Modifying the Report Layout.
- Enter the title for the report.
- Finally, click the Finish button to view the report.

108 **Loop:**

Loops execute a set of instructions repeatedly for a certain number of times.

Types of Loop:

There are 2 types of loop. (1) Entry Check Loop and (2) Exit Check Loop

Entry Check Loop:

There are 2 categories of entry check loop. (1) for (; ;) Loop and (2) while () Loop

Exit Check Loop:

There is only one exit check loop. (1) do..wile () Loop



for(;;) loop**Syntax / General Format :**

```
for ( initialization ; condition ; incre / decre )
{
    Action block of loop ;
}
```

Explanation of syntax :

- In general, a loop contains 3 portions.
- Namely, they are initialization, condition and increment / decrement.
- The open and close curly braces { } nothing but the action block of loop.
- From the above syntax, 'for' is a keyword.
- 'Initialization' means, the declaration of control variable.
- 'condition' check status of the loop.
- Then increment or decrement of control variable.

Working procedure of loop :

- From the above syntax, 'for' is a keyword and indicates that the loop is entry check loop.
- 'Initialization' means, the declaration of control variable along with a initial value.
- But, the initialization of control variable happen only once in the loop.
- 'Condition' checks the status of the loop.
- Condition may be either in relational or logical expressions.
- If the given condition is TRUE then the action block of loop get executed. Otherwise, if FALSE, the loop will be terminated (stopped).
- Then the increment or decrement of control variable will happen.
- Again the control checks the condition status.
- This process will continue until the given condition gets FALSE.

while() loop**Syntax :**

```
initialization;
while (condition)
{
    Action block of loop ;
    incre / decre ;
}
```

Explanation of syntax :

- In general, a loop contains 3 portions.
- Namely, they are initialization, condition and increment / decrement.
- The open and close curly braces { } nothing but the action block of loop.
- From the above syntax, 'Initialization' means, the declaration of control variable.
- 'while' is a keyword.
- 'condition' check status of the loop.
- Then increment or decrement of control variable.

Working procedure of loop :

- From the above syntax, 'Initialization' means, the declaration of control variable along with a initial value.
- But, the initialization of control variable happen only once in the loop.
- 'while' is a keyword and indicates that the loop is entry check loop.
- 'Condition' checks the status of the loop.
- Condition may be either in relational or logical expressions.
- If the given condition is TRUE then the action block of loop get executed. Otherwise, if FALSE, the loop will be terminated (stopped).
- Then the increment or decrement of control variable will happen.
- Again control checks the condition status.
- This process will continue until the given condition gets FALSE.

do..while(); loop**Syntax :**

```
initialization;
do
{
    Action block of loop ;
    incre / decre ;
}
while (condition) ;
```

Explanation of syntax :

- In general, a loop contains 3 portions.
- Namely, they are initialization, condition and increment / decrement.
- The open and close curly braces { } nothing but the action block of loop.
- From the above syntax, 'Initialization' means, the declaration of control variable.
- 'do' and 'while' are keywords.
- 'condition' check status of the loop.
- Then increment or decrement of control variable.

Working procedure of loop :

- From the above syntax, 'Initialization' means, the declaration of control variable along with a initial value.
- But, the initialization of control variable happen only once in the loop.
- 'while' is a keyword and indicates that the loop is entry check loop.
- 'Condition' checks the status of the loop.
- Condition may be either in relational or logical expressions.
- If the given condition is TRUE then the action block of loop get executed. Otherwise, if FALSE, the loop will be terminated (stopped).
- Then the increment or decrement of control variable will happen.
- Again control checks condition status.
- This process will continue until the given condition gets FALSE.



Example of loop :

```
# include <iostream.h>
# include <conio.h>
void main()
{
    int n = 5 ;
    for (int i = 1; i <= n; i++)
    {
        cout << "\t" << i ;
    }

    getch();
}
```

Output:

1 2 3 4 5

Example of loop :

```
# include <iostream.h>
# include <conio.h>
void main()
{
    int n = 5 , i = 1 ;
    while ( i <= n)
    {
        cout << "\t" << i ;
        i++ ;
    }

    getch();
}
```

Output:

1 2 3 4 5

- Here, this do..while(); loop has the condition at last of the loop body.
- It is a little difference when compared with above two loops.
- Due to this difference, exit check loop will execute at least only once, even though the condition get false.

Example of loop :

```
# include <iostream.h>
# include <conio.h>
void main()
{
    int n = 5 , i = 1 ;
    do
    {
        cout << "\t" << i ;
        i++ ;
    }
    while ( i <= n) ;
}
```

Output:

1 2 3 4 5

1

109 Debugging List : (any 10 errors enough : each error carries ½ mark)

Err No	Error Code	Correct Code	Reason
1	\$ include (iostream.h)	# include <iostream.h>	Need preprocessor directive (#)
2	\$ include (iostream.h)	# include <iostream.h>	< > symbols are needed for header files
3	void main [] ;	void main ()	() is need instead of []
4	void main [] ;	void main ()	; is not necessary
5		{	Open curly brace { is missing
6	int a ; b ;	int a , b ;	Separator comma is missing
7	a = 10	a = 10 ;	Terminator ; is necessary
8	b = 20	b = 20 ;	Terminator ; is necessary
9	if	if	Keyword 'if' should not have capital letters.
10	int temp	int temp ;	Terminator ; is necessary
11	Temp = a ;	temp = a ;	Variable name in error.
12	Cout >> \n < , a << \n' << b	cout << '\n' < , a << '\n' << b ;	Keyword 'cout' should not have capital letters.
13	Cout >> \n < , a << \n' << b	cout << '\n' < , a << '\n' << b ;	Insertion symbol not in proper position.
14	Cout >> \n < , a << \n' << b	cout << '\n' < , a << '\n' << b ;	Escaping sequence should be enclosed with quotes.
15	Cout >> \n < , a << \n' << b	cout << '\n' < , a << '\n' << b ;	Terminator ; is necessary

110 Output :

values before invoking the swap	10	20	1
calling swap...	20	10	1
back to main ... values are	10	20	1

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