

QUARTERLY EXAMINATION**SEPTEMBER 2016**

(held on 16/9/2016)

COIMBATORE DISTRICT**HIGHER SECONDARY – SECOND YEAR****COMPUTER SCIENCE****Marks : 150****Duration : 3:00 Hrs****Sample key prepared by :-****G. JAGADEESWARAN** M.C.A., M.Phil., M.Ed.,

SRI RAMAKRISHNA MISSION VIDYALAYA

SWAMI SHIVANANDA HR SEC SCHOOL

PERIYANAICKENPALAYAM

COIMBATORE-641020

Mobile : 9842342797

EMail : g.jagadeeswaran@gmail.com

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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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. 	1/2 1/2 1/2 1/2



78 **Change the Margin using Ruler :**

- 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.

1/2

1/2

1/2

1/2

79 **Electronic Spreadsheet :**

- An electronic spreadsheet is a worksheet used in a computer to create and quickly perform "What if" analysis of interrelated columnar data in workspaces.

2

80 **Differentiate between Cell Addressing :****RELATIVE CELL ADDRESSING**

- Default cell addressing
- Cell addresses can be change while copying
- No special symbol required
- Example : =sum(A1:B1)

ABSOLUTE CELL ADDRESSING

- Alternative cell addressing
- Cell addresses cannot change while copying
- Special symbol '\$' required for each cell address
- Example : =sum(\$A\$1:\$B\$1)

1/2

1/2

1/2

1/2

81 **Range :**

- 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.

1

1/2

1/2

82 **Database :**

- A database is a repository of collections of related data or facts.

2

83 **Differentiation between Query and Filter :** (Ant 4 points are enough)**QUERY**

- 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.

FILTER

- 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.

1/2

1/2

1/2

1/2

84 **Multimedia :**

- Multimedia is a computer-based presentation technique that incorporates text, graphics, sound, animations, and video elements.

2

85 **Steps to invoking to creating 3-D animation:**

- There are 3 essential steps to creating 3D animation.
- Namely, they are, (1) Modeling (2) Animating and (3) Rendering

2

86 **Sampling :**

- The conversion of analog sound waves to a digital format is called Sampling.

2

87 **Views of a presentation :**

- 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

2

88 **Uses of Master Slide :**

- 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.

2



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 ;
```

```
}
```



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97 **Advantages of Functions :**

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

98 **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


99 **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];

100 **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.**(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".**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 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	1/2
		Table Fixed, Proportional	1/2
		Table - Variable	
Cells		Merge Cells This icon is used to combine two or more cell into a single cell.	1/2
		Split Cells This icon is used to split a cell into two or more cells.	1/2
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.	1/2
		Inserting Column This icon inserts a column to the right of the current column.	1/2
		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.	1/2
		Line Style This icon is used to choose the style of line to be used for the border.	1/2
		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. 1 1/2

- 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 filled 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 form 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..while () 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

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 swap10    20
calling swap...
20    10
back to main ... values are10    20
```

Sample Key Created by :-

G. JAGADEESWARAN M.C.A., M.Phil., M.Ed.,
COMPUTER INSTRUCTOR
 SRI RAMAKRISHNA MISSION VIDYALAYA
 SWAMI SHIVANANDA HR SEC SCHOOL
 PERIYANAICKENPALAYAM
 COIMBATORE-641020
 Mobile : 9842342797
 Email : g.jagadeeswaran@gmail.com