

COMMON QUARTERLY EXAMINATION – SEPTEMBER 2018**XII – STANDARD
COMPUTER SCIENCE ANSWER KEY****SECTION-I**

1. a) 12
2. a) Delete
3. b) Insert column
4. d) Ruler
5. a) F2
6. b) Auto fill
7. c) Label
8. c) Master page
9. b) Navigator
10. d) Abstraction
11. d) Void
12. a) >>
13. a) Return
14. b) 0
15. a) strcmp

SECTION-II**16. Text Editing:**

- Entering a new text or modifying the existing text in a document is known as text editing.
- Copy, Cut, Paste and Find and Replace are some of the commonly used editing functions.

17. Generate series: 33, 30, 27,3?

1. Select the range of cells.
2. Choose Edit → Fill → Series to get Fill Series dialog box.
3. Select Linear Type.
4. Select Direction as Right.
5. Enter 33 as Start value.
6. Enter 3 as End value.
7. Enter -3 as Increment value and click ok button.

18. Query:

QUERY	FILTER
Queries are special views of the data in a table.	Filter is a type of query
Queries does not affect the original table	Filter affects the original table.
Query can be saved for later use.	Filters cannot be saved for later user.
The result from a query is always stored separately and can be viewed later.	The result of the filter cannot be saved separately.

19. Uses of morphing:

- Morphing is a technique by which we can blend two or more images to form a new image.
- Most modern multimedia applications, particularly games, combine these techniques with virtual reality to create an environment in which gives the viewer the feeling that he is part of that environment.
- Once the animations are created it can be enhanced using morphing.

20. Customize a presentation:

1. We can create as many as custom slides shows as we want.
2. Star office Impress allows us to star slide shows from the current slide.
3. We can hide/show the slides during a slide show.
4. We can define the right rehearse timings for automatic slide changes.

21. Encapsulation:

The Mechanism by which **the data and functions are bound together within an object** definition is called as Encapsulation.

22. Association in C++:

Operators are executed in the order of precedence. The operands and the operators are grouped in a specific logical way for evaluation. This logical grouping is called as association. **EX:** $a * = 2 (a = a * 2)$

23. Advantages of Functions:

- Reduce the size of the program
- Induce reusability of code
- A function can be shared by other programs by compiling it separately and loading them together.

24. Declare 2D Array:

- A two dimensional array is an array in which each elements is itself an array.

Syntax:

- Type array_id[Rows][Columns];
- Row refers the 1st index and Columns refers the 2nd index.

Example:

- `int marks [3] [4];` declare a 2-D array with 3 row and 4 columns
- `const int i = 5 ;`

SECTION-III**25. Add a word in autocorrect list:**

- If the error and its correction are to be added to the Auto Correct list the following command is used **Tools** → **AutoCorrect**, now auto correct dialog box appears on the screen.
- In this box, with the **Replace** tab selected the word to be replaced is typed in the **Replace** text box and the replacement word in the **With** text box.
- When the same mistake is made StarOffice Writer will automatically replace the misspelled word with the correct spelling.

26. Date arithmetic :

Manual date calculations can be tricky because we have to keep track of number of days in months.

In spreadsheets, date calculations become very simple. Here the user can add a number to a date and arrive at a new date, find the difference between two dates and use a wide variety of functions and formats to get what are required.

27. Filter:

- A filter is also a type of query. It is also used to select and display records which match a certain condition. The remaining records are hidden from the user.
- Thus to 'filter' database data base records means to select and display records which match a certain condition.

Two types of filters.

- I. *Auto Filter*
- II. *Default Filter.*

28. Record shows rehearse timing:

- Open a presentation, and switch to Normal View.
- Start the show with the Rehearse Timings from Slide Show menu. You see the first slide and a timer in the bottom left corner.
- When it is time to advance to the next slide, click the timer. Continue for all slides in your presentation.
- Star Office has recorded the display time for each slide.
- If you want the whole presentation to auto-repeat, open the menu Slide Show → Slide Show Settings. A window appears on the screen.
- Select Auto and then click OK.

29. Order of an Expression: (b xb) – (4 x a x c)

$$2b-4ac \quad (\text{or}) \quad b^2-4ac$$

30. Syntax:

```
if(condition / expression)
{
  action block 1;
}
else
{
  action block 2;
}
```

```
for(intial value ; test-condition ; increment)
{
  action block;
}
```

```
do
{
  action block;
}
while (condition);
```

31. Call by value and call by reference :**Call by value:**

- In this method, the called function creates new variables to store the value of the arguments passed to it.
- This method copies the values of actual parameters into the formal parameters, thus the function creates its own copy of arguments and then uses them.
- “In call by value method, any change made in the formal parameter is not reflected back to the actual parameter.”

Call by reference:

- In this method, the called function arguments-formal parameters become alias to the actual parameters in the calling function.
- The function is working with its own arguments.
- It is actually working on the original data.

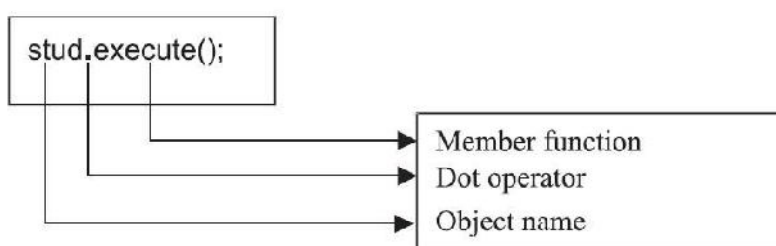
32. int x[3] [2]={0, 1, 2, 3, 4, 5}

Answer: X [1][1]=3
 X [2][0]=4

	0	1
0	0	1
1	2	3
2	4	5

33. Class member assessed:

The members of a class are accessed using the dot operator.
For example, the call statement to the function execute() of the class student may be given as:



SECTION-IV**34. Spell check:****Checking the Spelling after the Document is Typed**



The following steps are used for a spell check.

- **Tools** → **Spelling** → **Check** is selected or icon is clicked. To check a part of the document only that portion is selected.
- The **F7** key may also be pressed to select the spelling command.
- **Not in dictionary** text area displays the misspelled word and the **Suggestions** list displays any alternative spellings.

**Any of the following can be done:**

- To skip this occurrence but stop on the next one. **Ignore Once** button is clicked. To skip all occurrences of this word. **Ignore All** button is clicked.
- To replace the word with one of the selected spellings, in the suggestions list that spelling is clicked, and **Change** button is clicked to change this occurrence and **Change All** button is clicked 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.

(Or)**Indent a text:****Indenting Text with the Toolbar**

- If a left indent is required - useful for setting off a paragraph from the main body text - the toolbar can be used to set the indent.
- Click the **Increase Indent**  icon; the paragraph is indented 1/2 inch from the left margin. The button again can be clicked to increase the indent.
- Each time the button is clicked, the paragraph is indented another 1/2 inch.
- If the indent is too much or if one wants to undo the indent, the **Decrease Indent**  icon is clicked to decrease of undo the indents.

Indenting Text with the Paragraph Dialog Box

1. Move the insertion point to the beginning of the paragraph to be indented. To indent several paragraphs, select those paragraphs.
2. Select **Format** → **Paragraph** command. Now paragraph dialog box appears on the screen.
3. Click the **Indents & Spacing** tab in the Paragraph dialog box
4. Do any of the following.
 - To indent from the left, type the amount to be indented in the **Before text** spin box or use the spin arrows to select a value.
 - To indent from the right, type the amount to be indented in the **After text** spin box or use the spin arrows to select a value.
 - Click the **OK** button.
- The **First line** option can be used to indent the line of the paragraph. Using the spin arrows, if a positive value is specified, the first line will be indented.
- A negative value will result in a hanging indent; that is, the first line will hang outside the paragraph.

35. Functions in worksheet:

Using Functions:

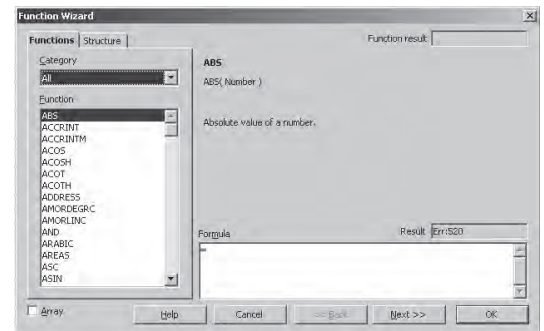
- StarOffice Calc has a wide variety of functions that allow you to perform several frequently done calculations.
- Functions are predefined formulae that are available in StarOffice Calc.

To insert a function:

- To select a function, go to **Insert** menu and Select the **Function** option. The **Function Wizard** dialog box appears.
- A list of all functions is displayed in the **Function** box when **All** is selected in the **Category** box.

To select a function:

- Select the category in the **Category** box.
- Scroll down the list to find the function you want. Click once on the function name to see a short description of that function on the right side of the window.
- Double – click on it to insert it into the worksheet.



- **f_x** The **Function Wizard** shortcut icon on the formula bar can also be used to select and insert functions.

For example,

- To insert the SQRT function, place the cursor in the cell where you want to insert the function and click on the Function Wizard icon.
- Select Mathematical from Category.
- Select the SQRT function from the list of functions, which appears by double clicking on it.
- Enter the number 64. When you click on OK, the result is displayed in the cell in the worksheet is 8.
- **Σ** One of the most commonly used function is the Sum function. This function calculates the sum of a given set of numbers.

(Or)

Insert Empty cell, row and column in calc:

Click the **Insert Cell** from **View** → **Toolbar** menu.

- A floating toolbar with four icons appears.
- These icons are,
 - **Insert Cells Down**
 - **Insert Cells Right**
 - **Insert Rows**
 - **Insert Columns**



Insert Cells Down:



- In order to insert an empty cell in a column and move the existing cells down, place the cursor in the cell where you want to insert the new cell and click on the **Insert Cells Down** icon.
- For example, in the Marks worksheet, to insert a cell in D4 and move the contents of the cell D4:D7 down, select D4 and click the icon.

Insert Cells Right



- In order to shift the content of a cell to the right and to create an empty cell, select the cell and click the **Insert Cells Right** icon.
- For example, suppose that the data in the fifth row of the Marks worksheet has to be shifted from C5-F5 to D5-G5. To do so, select the cell C5 and click the icon.

Insert Columns

- In order to insert a column, select the column where you want to insert and click the **Insert Columns** icon.
- For example, to insert a new column between E and F in the Marks worksheet, select the column F and click the icon.

Insert Rows

- In order to insert an empty row in a worksheet, select the row where you want to insert the new row and click the **Insert Rows** icon.
- For example, if you want to insert a new row between rows 4 and 5 in the Marks worksheet select the row 5 and click the icon.

36. Classification database:**Database Types:**

Based on the conceptual structures, the databases can be classified as follows:

1. Flat – File database
2. Relational database
3. Hierarchical database
4. Network database
5. Object-Oriented database

Flat – File Database

- A database file that consists of a single data table is a **Flat-file database**.
- Flat-file database can be quite useful for certain single user or small-group situations, especially for maintaining lists such as address lists or inventories.
- Data that is stored, managed, and manipulated in spreadsheet is another example of a flat-file database.

Relational database

- A relational structure represents a database made up of a set of related tables.
- In a relational database, one or more common fields existing in two or more tables create a relationship between these tables. The common field or fields are called the **Keys**.
- A **primary key** is a key that uniquely identifies a record in a database table.
- In relational databases, a primary key can consist of one or more fields.
- The relational database structure is the most prevalent database in today's business organizations.

Hierarchical database

- The hierarchical database structures were primarily used on Main Frame computers.
- In hierarchical databases, records are organized in a tree like structure by type.
- The relationship between record types is said to be a parent-child relationship, in which any child type relates only to a single parent type.

Network database

- The Network database is very similar to the hierarchical structure except that any one record type can relate to any number of other record types.

Object Oriented database

- An Object Oriented database is a newer structure that has been generating a great deal of interest in recent years.
- The object oriented structure groups data items and their associated characteristics, attributes, and procedures into complex items called objects.
- An object is defined by its characteristics, attributes and procedures.
- A procedure refers to the processing or handling that can be associated to the object.

(Or)

Form design:**A form:**

A form is simply a screen that displays the fields of a record in a well-spaced out manner. A form can be associated with a single table or with multiple tables.

To design a form in Star Base, follow the procedure given below:

1. Select **Form** icon from the <Database> pane and then select 'Use Wizard to Create Form'.
2. Select the table or query for which the form is to be designed. The field names of the selected table or query are displayed in the '**Available fields**' text area.
3. Select the field names that you would like to include in the form using the > or >> button and then click the **Next** button.
4. Next, StarOffice Base displays '**Set up a subform**' window. Select the '**Add Subform**' checkbox, if you want to insert another form with within this form else click **Next**. The **Style** icons show you how the form will look if it is selected. Click on the **Style** icon and click on the **Next** button.
5. The next window to selecting the data entry mode. Click on the radio button to choose whether the form is to be used only for entering new data or to be used for displaying all data.
6. The next window **Form Wizard – Apply Styles** specifies the form style. The page style decides the font attributes like font type, size color and background of the text in the form. The **Field border** specifies the field border style for the form.
7. Next, **Set the name of the form** window appears asking for a name for the form. Type the name of the form and click the Finish button.

37. Entry control loop:

1. While Loop
2. For Loop

1. While loop:

- While loop is also called as entry check loop. The body of the while loop will be executed only if the test expression results true placed in the while statement.
- The control exits the loop once the test expression evaluated to false.

Syntax:-

```
while (condition)
{
action block;
}
```

Example:

```
#include<iostream.h>
#include<conio.h>
main()
{
clrscr();
int n=2;
while(n<6)
{
cout<<n*n<< "\t";
n=n + 1;
}
getch();
}
```

OUTPUT:

4 9 16 25

2.for (; ;) .. loop:

- for (; ;) loop is an entry controlled loop. It is used when an action is to be repeated for a predetermined number of times.
- The body of the for loop is executed only if the test expression results is true placed in the **for statement**.
- The control exits the loop once the test expression evaluated to false.

Syntax:

```
for(intial value ; test-condition ; increment)
{
action block;
}
```

- The body of the loop has one or more statement. The blocking with braces are needed only if the contains two or more statements.

Example:

```
#include<iostream.h>
#include<conio.h>
void main()
{
clrscr();
int i;
for(i=0; i<5; i++)
{
cout<< i << "\n";
}
getch();
}
```

OUTPUT:

```
0
1
2
3
4
```

(Or)**Types of parameters passing functions:****1. Call by value method:**

- In this method, the called function creates new variables to store the value of the arguments passed to it.
- This method copies the values of actual parameters into the formal parameters, thus the function creates its own copy of arguments and then uses them.
- “In call by value method, any change made in the formal parameter is not reflected back to the actual parameter.”
- In this method, the called function creates new variable to store the value of the arguments passed to it.

Example:

```
#include<iostream.h>
#include<conio.h>
void sawp(int n1,int n2)
{
int temp;
temp=n1;
n1=n2;
n2=temp;
cout<<n1<<'\t'<<n2<<'\n';
}
main()
```



```

{
int m1=10,m2=20;
clrscr();
cout<< "Before swap"<<m1<<'\t'<<m2<<'\n';
cout<< "Calling swap\n";
swap(m1,m2);
cout<< "Back to main values are"<<m1<<'\t'<<m2<<'\t';
getch();
}

```

OUTPUT:

```

Before swap 10 20
Calling swap
20 10
Back to main values are 10 20

```

2. Call by reference method:

In this method, the called function arguments-formal parameters become alias to the actual parameters in the calling function.

- The function is working with its own arguments.
- It is actually working on the original data.
- In this method, any change made in the formal parameter is reflected back in the actual parameter.

Example:

```

#include<iostream.h>
#include<conio.h>
void sawp(int &n1,int &n2)
{
int temp;
temp=n1;
n1=n2;
n2=temp;
cout<<n1<<'\t'<<n2<<'\n';
}
main()
{
int m1=10,m2=20;
clrscr();
cout<< "Before swap"<<m1<<'\t'<<m2<<'\n';
cout<< "Calling swap\n";
swap(m1,m2);
cout<< "Back to main values are"<<m1<<'\t'<<m2<<'\t';
getch();
}

```

OUTPUT:

```

Before swap 10 20
Calling swap
20 10
Back to main values are 10 20

```

38. Output of the Program:

1
2
3
4
5

Value of the variable i after executing the while loop.... 5

Sum.....15

(Or)

Write the program: [C++ Program - Reverse Array]

```
# include <iostream.h>
# include <conio.h>
void main ( )
int even [10] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}; int reverse [10];
for (int i=0, int j = 9; i<10; i++, j —)
reverse [j] = even [i];
clrscr ( );
for (i=0; i<10, i++)
cout<< '\t' << even [i] << '\t' << reverse [i] << '\n';
getch ( );
}
```

Output :

1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
9	2
10	1

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*****ALL THE BEST*****

