PART-I

Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer.

[75 × 1 = 75]

1. Which is embedded in StarOffice Impress to support different audio and video file formats?
   a) Media player   b) Outline   c) Hatching   d) Gradient

2. In Presentation window, how many tabs are there in the center pane?
   a) Four   b) Six   c) Three   d) Five

3. In Database Table, each column represents:
   a) Row   b) Field   c) Table   d) Record

4. In StarOffice Base, which command is used to insert a text outline into a presentation?
   a) File → Outline to presentation   b) File → Send → Outline to Presentation
   c) Format → Outline to Presentation   d) Format → Send → Outline to Presentation

5. If \( a = 5 \), \( b = 4 \) and \( c = 6 \), the value of the expression \( a = \frac{a + b}{2*c} \); is:
   a) 16   b) 17   c) 42   d) 60

6. Which function inserts the function's code directly into the calling program?
   a) void   b) main   c) return   d) inline

7. In which year the Real Audio/Real Video format was developed?
   a) 1995   b) 1982   c) 1992   d) 1985

8. In the early programming languages, the input and output data items were represented as:
   a) data   b) object   c) variables   d) class

9. In StarOffice Writer, which dialog box is opened when we select Format → Page command?
   a) Header   b) Page Style   c) Format   d) Footer

10. Program statements that cause a jump of control from one part of a program to another are called:
    a) Input   b) Output   c) Control Structures   d) Assignment

11. CBT - stands for:
     a) Computer Based Tools   b) Computer Based Technique
     c) Computer Based Tutorials   d) Common Based Tutorials

12. Files in the QuickTime format have the extension:
    a) .snd   b) .mov   c) .swf   d) .wmf

13. In StarOffice Calc, which one is the most commonly used function?
    a) SQR   b) AVG   c) SUM   d) POW

14. Which one of the following is not a multimedia content development software?
    a) Flash   b) Maya   c) Notepad   d) DreamWeaver
15. The class from which the other classes are derived is called:
   a) Base class  b) Object class  c) Derived class  d) Function class

16. In StarOffice Writer, which key combination is used to center align paragraph?
   a) Ctrl + C  b) Ctrl + A  c) Ctrl + E  d) Ctrl + L

17. In C++, data members are also called:
   a) member functions  b) attributes  c) methods  d) objects

18. In StarOffice Calc, which bar is used to display the current cell and its contents?
   a) Object bar  b) Status bar  c) Scroll bar  d) Formula bar

19. Which key is used to start presentation?
   a) F2  b) F11  c) F5  d) F7

20. Which is a repository of collections of related data or facts?
   a) Field  b) Database  c) Record  d) Editing

21. Which is a key that uniquely identifies a record in a database table?
   a) Primary  b) Network  c) Flat-File  d) Hierarchical

22. The mechanism by which the data and functions are bound together within an object definition is called as:
   a) Polymorphism  b) Object  c) Class  d) Encapsulation

23. Which one of the following is a sound editing program?
   a) JPEG  b) Vector Graphics  c) Modeling  d) Sound Forge

24. In C++, the range of int data type is:
   a) –32678 to 32767  b) –32678 to 32768  c) –32767 to 32767  d) –32768 to 32767

25. In C++, the size of the array should always be:
   a) Date  b) Positive  c) Negative  d) Float

26. The name of the constructor must be same as that of what?
   a) object  b) function  c) class  d) method

27. In C++, which of the following is not a class access specifier?
   a) public  b) private  c) pointer  d) protected

28. In StarOffice Writer, which key is used to move forward through the cells in the table?
   a) Shift  b) Ctrl  c) Alt  d) Tab

29. Which keys are pressed to move the insertion point to the end of a document?
   a) Ctrl + Home  b) Ctrl + End  c) Shift + Home  d) Shift + End

30. In C++, which is achieved through function overloading and operator overloading?
   a) Encapsulation  b) Polymorphism  c) Function  d) Inheritance
31. How many destructor can be given in a class?
   a) 1 (one)   b) 2 (two)
   c) 3 (three) d) 4 (four)

32. In StarOffice Calc, which one of the following sign is used to make the cell, absolute cell address?
   a) $   b) #
   c) !   d) &

33. The command to insert a range of Calc Cells into a text document:
   a) Edit → Cut
   b) Format → Paste
   c) Edit → Paste Special
   d) Edit → Copy

34. void add :: display( ) in this example what is the name of the class?
   a) void
   b) add
   c) add :: display( )
   d) display( )

35. Which is the inequality operator in StarOffice Calc?
   a) !   b) <>
   c) ==   d) #

36. How many times the loop will be executed?
   for (m = 0; m<6; m++)
   a) 6   b) 7
   c) 5   d) 4

37. In the following snippet what is the scope of the variable 'a'?
   if (x>y)
   {
       int a = x;
       a++;
   }
   a) file   b) function
   c) local   d) class

38. Which permits banking from the comfort of the home by using internet facility?
   a) Call center
   b) e-Learning
   c) e-Shopping
   d) e-Banking

39. In StarOffice Writer, which command is used to insert more than one row in a table?
   a) Insert → Table → Rows
   b) Table → Insert → Rows
   c) Table → Rows → Insert
   d) Format → Rows

40. In StarOffice Writer, which of the following is the decorative font?
   a) Times New Roman
   b) Symbol
   c) Wingdings
   d) Fajita

41. In StarOffice Writer, which key is pressed to select the spelling check dialog box?
   a) F7   b) F6
   c) F5   d) F4

42. In C++, the function that returns no value is declared as:
   a) void   b) int   c) inline   d) main

43. A filter is also a type of:
   a) Table   b) Query
   c) Form   d) Report

44. In C++, which one of the following is the extraction or get from operator?
   a) <   b) >
   c) <<   d) >>

45. GIF is limited to how many bit palette?
   a) 16   b) 256
   c) 8   d) 32
46. BPO - stands for:
   a) Business Processing Outlet
   b) Business Process Outsourcing
   c) Business Process Output
   d) Basic Process Outsourcing

47. Which is used to create presentation?
   a) StarOffice Writer
   b) StarOffice Calc
   c) StarOffice Impress
   d) StarOffice Base

48. In C++, each overloaded function must differ either by the number or their datatype of which parameters?
   a) actual
   b) default
   c) reference
   d) formal

49. In C++, integral promotions are purely what oriented?
   a) source code
   b) object file
   c) executable file
   d) compiler

50. Which key combination is used to save a table in database?
   a) Ctrl + N
   b) Ctrl + A
   c) Ctrl + S
   d) Ctrl + F

51. The default top, bottom margins in a document should be _________ inches.
   a) 1.25
   b) 1
   c) 2
   d) 2.25

52. Which key combinations is used to print slides in StarOffice Impress?
   a) Alt + P
   b) Shift + P
   c) Ctrl + P
   d) Ctrl + Shift + P

53. Which of the following is a default constructor?
   a) add(add & x)
   b) add()
   c) add(int x)
   d) add(int x, int y)

54. The most important feature of C++ is the:
   a) class
   b) pointer
   c) variable
   d) structure

55. How many main steps are there in medical transcription?
   a) three
   b) two
   c) four
   d) five

56. Which is a self-replicating program that can cause damage to data and files stored on the computer?
   a) Antivirus
   b) Cracking
   c) Piracy
   d) Virus

57. In C++, what will be the size of the array?
   float y[6][4];
   a) 24 bytes
   b) 48 bytes
   c) 10 bytes
   d) 96 bytes

58. In C++, which is a variable that holds a memory address?
   a) pointer
   b) constant
   c) control structure
   d) loop

59. In C++, the array belongs to which data type?
   a) derived
   b) user defined
   c) built-in
   d) structure

60. Data abstraction is achieved through:
   a) Polymorphism
   b) Inheritance
   c) Data Hiding
   d) Array

61. Which view allows the user to create and edit slides?
   a) Normal view
   b) Outline view
   c) Notes view
   d) Handouts view

62. In StarOffice Base, which is a process of joining data from two or more tables of the same or different database?
   a) Searching
   b) Sorting
   c) Merging
   d) Filtering
63. The body of a class is terminated by:
   a) , (comma)  
   b) : (colon)  
   c) . (dot)  
   d) ; (semicolon)

64. Which character prefix the destructor name in C++?
   a) ~ (tilde)  
   b) + (plus)  
   c) ++ (increment)  
   d) ! (NOT)

65. In StarOffice Calc, which is used to make data easier to understand?
   a) formula  
   b) functions  
   c) object  
   d) charts

66. In StarOffice Calc, which icon used to insert objects from other applications into a worksheet?
   a) Insert OLE object  
   b) Insert Applet  
   c) Insert Floating Frame  
   d) Insert Movie and Sound

67. Access specifier is also referred to as:
   a) class member  
   b) scope  
   c) inheritance  
   d) visibility mode

68. In C++, which are the data items whose values cannot be changed?
   a) constants  
   b) punctuators  
   c) Keywords  
   d) Identifiers

69. In C++, which statement forces the next iteration of the loop to take place, skipping any code that follows it?
   a) continue  
   b) break  
   c) return  
   d) size of

70. In C++, which of the following is a scope resolution operator?
   a) :  
   b) &  
   c) *  
   d) ::

71. Visicalc was developed in the year:
   a) 1982  
   b) 1999  
   c) 1979  
   d) 1959

72. Which one of the following is simply a screen that displays the fields of a record in a well-spaced out manner?
   a) Query  
   b) Report  
   c) Filter  
   d) Form

73. What is the error thrown by the compiler for the following snippet?
   if (a<b);
   cout<<"Greater";
   else
   cout<<"Smaller";
   a) misplaced if  
   b) misplaced else  
   c) misplaced if else  
   d) statement missing

74. When a derived class inherits only from one base class, it is known as:
   a) Multiple Inheritance  
   b) Single Inheritance  
   c) Hybrid Inheritance  
   d) Multilevel Inheritance

75. Which is illegal access to the network or computer system?
   a) Piracy  
   b) Virus  
   c) Cracking  
   d) Computer Crime

**PART-II**

Answer any twenty questions in one or two sentences each: [20 × 2 = 40]

76. What is meant by Word Processing?

77. What is Hanging Indent?

78. What is Date Arithmetic in StarOffice Calc?

80. What are the three general categories of the data management task?

81. What is Report?

82. Write about the types of video compressions.

83. Write a note on AVI format.

84. How will you change the slide background?

85. What is Custom Animation?

86. What is the significance of an object?

87. Write note on impact of modifiers.

88. What are tokens? What are its types?

89. What is the use of break statement?

90. What are the three primary sections of C++?

91. What is meant by return statement?

92. What is an Array? What are its types?

93. What is the use of strcmp() function?

94. What are the specifications of a class?

95. Write the general form of class declaration.

96. How are functions invoked in function overloading?

97. What are the functions of a constructor?

98. What are the advantages of Inheritance?

99. What is Call Center?

100. What is Computer Crime?

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**PART-III**

Answer any seven questions. \[7 \times 5 = 35\]

101. How will you select the required portion of the text in a document using mouse, keyboard and shortcuts?

102. What are the various functions of the icons in the table formatting tool bar in StarOffice Writer?

103. What are functions (in StarOffice Calc)? How will you use them in the worksheet? Explain with an example.

104. Explain the various icons in the insert object floating tool bar of StarOffice Calc.

105. Explain the different types of Database.

106. Explain Exit-check loop with syntax and example.

107. Explain call by reference method with suitable example.


109. Debug the following C++ program to get the following output:

Output: (Assume a = 15, b = 16)

```
--------------
Simple Constructor
Enter Values for a and b...15 16
The two integers...15 16
The sum of the variables...31
Simple Destructor
--------------
```

Program:

```
# include <iostream. H>
# include < conio.h >
```
class simple
{
  Private:
  int a; b;
  Public
  simple( )
  {
    a=b=0;
    cout<>"Constructor Simple";
  }
  -simple( )
  {
    cout<="\nSimple Destructor";
  }
  void getdata( );
  {
    cout<="\nEnter values for a and b..."; cin<>a<>b;
  }
  void putdata( );
  {
    cout<="\nThe two integers..."<<a<>l<>b;
    cout<>" \nT he S U M o f variables..."<<a+b;
  }
  void main [ ]
  {
    simple s;
    s.getdata ( )
    s.Outdata ( );
  }
}

110. Find the output for the following C++ program.
#include <iostream.h>
#include <conio.h>
class first
{
  int sum;
  protected:
    int num1, num2;
  public:
    first()
    {
      num1=num2=sum=0;
      cout<="\n First Constructor";
    }
    void accept( )
    {
      cout<="\nEnter the two numbers";
      cin>>num1>>num2;
    }
    void plus( )
    {
      sum = num1 + num 2;
      cout<="\nThe sum of two numbers are..."<<sum;
    }
  
  
  class second : public first
  {
    int sub;
  
  }
public:
    second( )
    {
        sub = 0;
        cout<<"\n Second Constructor"
    }

void minus( )
{
    first: :accept( );
    sub=num1-num2;
    cout<<"\n The difference of two numbers are"<<sub;
}

void main( )
{
    second s;
    int choice = 0;
    cout<<"\n Enter your choice-(1 or 2)"
    cout<<"\n 1. Add... \n 2. Subtract..."
    cin>>choice;
    switch(choice)
    {
        case 1:
            s.accept( );
            s.plus( );
            break;
        case 2:
            s.minus( );
            break;
    }
**Answers**

**Part - I**

1. (a); 2. (d); 3. (b); 4. (b); 5. (b); 6. (d); 7. (a); 8. (c); 9. (b); 10. (c); 11. (c); 12. (b); 13. (c); 14. (c); 15. (a); 16. (c); 17. (b); 18. (d); 19. (c); 20. (b); 21. (a); 22. (d); 23. (d); 24. (d); 25. (b); 26. (c); 27. (c); 28. (d); 29. (a); 30. (b); 31. (a); 32. (a); 33. (c); 34. (b); 35. (b); 36. (a); 37. (c); 38. (d); 39. (b); 40. (d); 41. (a); 42. (a); 43. (b); 44. (d); 45. (c); 46. (b); 47. (c); 48. (d); 49. (d); 50. (c); 51. (b); 52. (c); 53. (b); 54. (a); 55. (a); 56. (d); 57. (d); 58. (a); 59. (a); 60. (c); 61. (a); 62. (c); 63. (d); 64. (a); 65. (d); 66. (a); 67. (d); 68. (a); 69. (a); 70. (d); 71. (c); 72. (d); 73. (b); 74. (b); 75. (c).

**Part - II**

76. 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. A document may contain text, tables, graphs, charts, equations, pictures and drawings.

77. This visual clue helps the reader to see how the document is divided into paragraphs. The paragraphs are also indented, such as quotations that are set apart from the main document text. As another option, one may want to use a special kind of indent, called a *hanging indent*, for numbered lists.

78. Manual data calculations can be tricky because we have to keep track of the number of days in a month. In spreadsheets, date calculations become very simple. To add a number to a date and arrive at a new data, find the difference between two dates one can use a wide variety of function and formats.

79. The operators which *combine cell areas* are called Reference operators.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Name</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>: (Colon)</td>
<td>Range</td>
<td>A1 : C108</td>
</tr>
<tr>
<td>! (Exclamation point)</td>
<td>Intersection</td>
<td>SUM(A1 : B6!B5 : C12)</td>
</tr>
</tbody>
</table>

80. The categories of the data management task in DBMS are:
1. Entering data into the database.
2. Reordering records in the database.
3. Obtaining subsets of the data.
81. A report is printed information based on a query that gathers criteria-matching data and, in some cases, performs mathematical calculations.

82. The two types of video compressions are:
   (i) **Lossless compression**: Retains the exact image throughout the compression.
   (ii) **Lossy compression**: Provides a comparatively higher ratio of compression but results in some loss of quality.

83. The Audio Video Interleave or AVI format was developed by Microsoft in 1992. It is supported by all computers running the **Windows operating systems** and by most of the popular browsers. It is a very common format on the Internet. Videos files stored in the AVI format have the extension .avi.

84. To change the background color or the background fill of the current slide or all of the slides in the document the procedure followed is:

   Choose **Format → Page → Background**.

   Select the background fill options:
   - Color
   - Gradient
   - Hatching
   - Bitmap Image

85. This page displays various options that allow the user to add or modify animation effects to elements of a slide.

86. An object is a group of related functions and data that serves those functions.

   An object is a kind of self-sufficient ‘subprogram’ with a specific functional area.

87. **The impact of modifiers.**

   (i) **unsigned** modifies the range of the integer values as the sign bit is also used to store data.

   (ii) **long** increases the bytes for a particular data type, thus increasing the range of values.

88. Tokens are the basic types of elements essential for program coding. It is the smallest individual unit in a program.

<table>
<thead>
<tr>
<th>Tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keywords</td>
</tr>
</tbody>
</table>

89. (i) **Break** statement would exit the current loop only.

   (ii) **Break** statement accomplishes jump from the current loop.

90. A C++ Program has primarily three sections Viz.,

   - Include files
   - Declaration of variables, data type, user defined functions.
   - main() function

91. **Return** statement marks the end of the function and also transfers control to the statement after call statement.

92. An **array** is a collection of variables of the same type that are referenced by a common name.

   The two types of array are:

   1) One dimensional.
   2) Multi-dimensional.
93. It compares the two given strings and returns 0 if strings are equal, value > 0, if string 1 is greater than string 2. Otherwise value less than 0. For example, strcmp (“Abc”, “Abc”) returns O. strcmp (“Abc”, “abc”) returns a value less than O.

94. A class specification has two parts. They are

(i) Class declaration,

(ii) Class function definitions.

95. Class class-name

{
    private:
        variable declaration
        function declaration
    protected:
        variable decl.
        function decl.
    public:
        variable decl.
        function decl.
};

96. The compiler adopts BEST MATCH strategy. As per this strategy, the compiler will,

(i) Look for the exact match of a function prototype with that of a function call statement.

(ii) In case an exact match is not available, it looks for the next nearest match. That is, the compiler will promote integral data promotions and then match the call statement will function prototype.

97. Functions of constructor are:

(i) The constructor function initializes the class object.

(ii) The memory space is allocated to an object.

98. The advantages of Inheritance are:

(i) Reusability of code. Many applications are developed in an organization.

(ii) Code sharing. The method of the base class can be shared by the derived class.

(iii) Consistency of interface. The inherited attributes and methods provide a similar interface to the calling methods.

99. A call center is sometimes defined as a telephone based shared service center for specific customer activities and are used for number of customer-related functions like marketing, selling, information transfer, advice, technical support and so on. A call center has adequate telecom facilities, trained consultants, access to wide database, Internet and other on-line information support to provide information and support services to customers. It operates to provide round the clock and year round service i.e., 24×365 service.

100. A computer crime is any illegal activity using computer software, data or access as the object, subject or instrument of the crime.

PART -III

101. Steps to select the text with mouse:

1. Insertion point is moved to the start of the text to be selected.

2. The left mouse button should be clicked, held down and dragged across the text to be selected.
3. When the intended text is selected the mouse button should be released.

Steps to select text with keyboard:

1. Insertion point is moved to the start of the text to be selected.
2. The *Shift key* is pressed down and the movement keys are used to highlight the required text.
3. When the *Shift key* is released, the text is selected.

<table>
<thead>
<tr>
<th>Action to be performed</th>
<th>To select what</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double click on a word</td>
<td>To select a word</td>
</tr>
<tr>
<td>Click once next to the line</td>
<td>To select the particular line</td>
</tr>
<tr>
<td>Press Ctrl + A</td>
<td>To select the entire document</td>
</tr>
</tbody>
</table>

102. The function of each icon in the toolbar are:

- **Table Fixed.**
- **Table Fixed, Proportional.**
- **Table Variable.**
- **Merge cells:** This icon is used to combine two or more cells into a single cell.
- **Split cells:** This icons is used to split a cell into two or more cells.
- **Optimise:** 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.

103. 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 select a function, go to *Insert* menu and Select the *Function* options. 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*. If a category is selected (e.g. Mathematical) the functions related to that category alone will be displayed in the function box.

**To select a function.**

(i) Select the category in the Category box.

(ii) 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.
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 the user 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. The Function Wizard displays a brief description of the function and prompts the user to enter the number or the cell address on which the function should work. Enter the number **64**.

Now click on OK, the result is displayed in the cell in the worksheet.

One of the most commonly used function is the **Sum** function. This function calculates the sum of a given set of numbers.

To use this function, in the worksheet, to calculate the total in cell G3, the steps are:

(i) Click on the cell G3 to place the cursor there.

(ii) Click on the **Sum** icon on the function bar. \( = \text{SUM (C3:F3)} \) appears in the cell.

(iii) Press **Enter** to accept the suggested range.

The result, is displayed in the cell G3.

To get **Insert Object** floating toolbar, click on **View → Toolbar → Insert Object** option. It displays with following icons:

1. **Insert chart icon**
   
   This icon is used for presenting the data in the worksheet in the form of charts of different kinds such as bar chart, pie, chart, lines, X-Y plot, etc.

2. **Insert Formula icon**

   This icon is used for inserting a formula in the worksheet for performing calculations.

3. **Insert Floating Frame icon**

   This icon is used to generate a scrolling screen within a worksheet.

4. **Insert Movie and Sound icon**

   This icon is used to insert sound or video files into the current worksheet.

5. **Insert OLE object icon**

   This icon is used to insert objects from other application into a worksheet.

6. **Insert Applet icon**

   This icon is used to import Java Applets into the worksheet.

The classification of Database based on conceptual structures are:

(i) **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.

(ii) **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 database, a primary key can consist of one of more fields.

The relational database structure is the most prevalent database in today’s business organizations.

*(iii) Hierarchical database.* The hierarchical database structures were primarily used on Main Frame computers. In hierarchical database, 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 types.

*(iv) 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.

*(v) Object Oriented database.* The object oriented structure groups data items and their associated characteristics, attributes and procedures into complex items called objects. Physically and object can be anything: a product or event, such as a house, an appliance, an art piece, a customer complaint, or even a purchase. An object is defined as, an art piece, a customer complaint, or even a purchase. An object is defined by its characteristics, attributes and procedures. An objects characteristics can be text, sound, graphics and video. Examples of attributes might be colour, size, style, quantity and price. A procedure refers to the processing or handling that can be associated to the object.

106. Do ... while `<(condition)>` is called exit-check loop, as the condition(test expression) marks the last statement of the body of the loop.

   **The construct of a do ... while loop is:**

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

   **Example :**

   ```
   # include <iostream.h>
   # include <conio.h>
   void main ( )
   {
   int i = 10; choice = 1;
   do
   {
   cout << i;
   i ++;
   }
   getch();
   }
   ```

   **Output:**

   Infinite loop

107. In call by reference method, the called function arguments-formal parameters become alias to the actual parameters in the calling function. This means that when the
function is working with its own arguments it is actually working on the original data. Let us now rewrite the function using reference parameters.

```cpp
#include <iostream.h>
#include <conio.h>

void swap (int &n1, int &n2)
{
    int temp;
    temp = n1;
    n1 = n2;
    n2 = temp;
    cout<<'n'<< n1
        <<'t'<<n2<<'n'
            ;
}

void main ( )
{
    int m1 = 10, m2 = 20;
    clrscr();
    cout<<'n'Values before swap call'<< 'n'
        << m1 << 't' << m2;
    swap(m1,m2);
    cout<<'n Calling sawp..'
    ;
    cout<<'n Back to mai.... Values are'
        << 't' << m1 << 't'<< m2;
    getch ( );
}
```

Output :
Values before invoking swap  10 20
Calling swap .....  20 10
Back to main...... Values are  20 10

108. The mechanism of giving special meaning to an operator is called operator overloading.

**Rules for overloading operators:**

There are certain restrictions and limitations in overloading operators. They are:

(i) Only existing operators can be overloaded. New operators cannot be created.

(ii) The overloaded operator must have at least one operand of user defined type.

(iii) The basic definition of an operator cannot be replaced or in other words one cannot redefine the function of an operator. One can give additional functions to an operator.

(iv) Overloaded operators behave in the same way as the basic operators in terms of their operands.

(v) When binary operators are overloaded, the left hand object must be an object of the relevant class.

(vi) Binary operators overloaded through a member function take one explicit argument.
109.

<table>
<thead>
<tr>
<th>Line No</th>
<th>Error Code</th>
<th>Correct Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>#include&lt;iostream.H&gt;</td>
<td>#include&lt;iostream.h&gt;</td>
</tr>
<tr>
<td>2</td>
<td>Private:</td>
<td>private:</td>
</tr>
<tr>
<td>3</td>
<td>int a;b;</td>
<td>int a,b</td>
</tr>
<tr>
<td>4</td>
<td>Public</td>
<td>public:</td>
</tr>
<tr>
<td>5</td>
<td>cout&gt;&gt;”Constructor Simple”;</td>
<td>cout&lt;&lt;” Simple Constructor”;</td>
</tr>
<tr>
<td>6</td>
<td>-simple()</td>
<td>~simple()</td>
</tr>
<tr>
<td>7</td>
<td>void getdata();</td>
<td>void getdata()</td>
</tr>
<tr>
<td>8</td>
<td>cin&lt;&lt;a&gt;&gt;b;</td>
<td>cin&gt;&gt;a&gt;&gt;b;</td>
</tr>
<tr>
<td>9</td>
<td>cout&lt;&lt;”\nThe two integers...”&lt;&lt;a&lt;&lt;”\t”&lt;&lt;b;</td>
<td>cout&lt;&lt;”\nThe two integers...”&lt;&lt;a&lt;&lt;”\t”&lt;&lt;b;</td>
</tr>
<tr>
<td>10</td>
<td>cout&gt;&gt;”\nThe SUM of variales...”&lt;&lt;a+b;</td>
<td>cout&lt;&lt;”\nThe SUM of variales...”&lt;&lt;a+b;</td>
</tr>
<tr>
<td>11</td>
<td>void main[ ]</td>
<td>void main ()</td>
</tr>
<tr>
<td>12</td>
<td>s.getdata()</td>
<td>s.getdata () ;</td>
</tr>
<tr>
<td>13</td>
<td>s.Outdata();</td>
<td>s.putdata();</td>
</tr>
</tbody>
</table>

110. Out put

<table>
<thead>
<tr>
<th>No</th>
<th>(if choice=1)</th>
<th>(if choice=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>First Constructor</td>
<td>First Constructor</td>
</tr>
<tr>
<td></td>
<td>Second Constructor</td>
<td>Second Constructor</td>
</tr>
<tr>
<td></td>
<td>Enter your choice-(1 or 2)</td>
<td>Enter your choice-(1 or 2)</td>
</tr>
<tr>
<td></td>
<td>1.Add...</td>
<td>1.Add...</td>
</tr>
<tr>
<td></td>
<td>2.Subtract...1</td>
<td>2.Subtract...2</td>
</tr>
<tr>
<td></td>
<td>Enter the two numbers 10 5</td>
<td>Enter the two numbers 10 5</td>
</tr>
<tr>
<td></td>
<td>The Sum of two numbers are...15</td>
<td>The difference of two numbers are...5</td>
</tr>
</tbody>
</table>