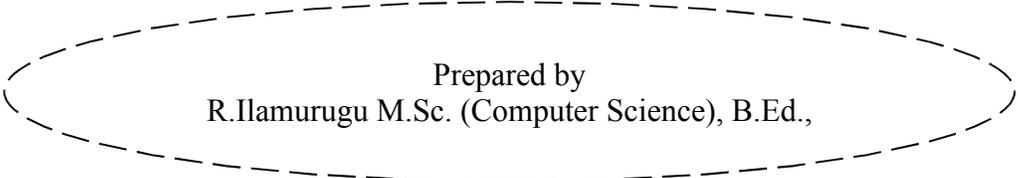


XII STANDARD
COMPUTER SCIENCE

VOLUME – II

OBJECT TECHNOLOGY (C++) UNIT TEST QUESTIONS



Prepared by
R.Ilamurugu M.Sc. (Computer Science), B.Ed.,

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 hrs.

I. Choose the best answer:**30 x 1 = 30**

1. Solution of the problem are in the form of
 a. Computer programs b. Application programs c. data items d. both a and b
2. Which were viewed as a separate segment in OOP?
 a. Data & variables b. Data & operations c. Data & control d. all
3. OOP facilities the way of problem solving by combining
 a. Data & variables b. Data & operations c. Data & control d. Data & functions
4. Which represents the behavior of an object?
 a. State b. data c. operation d. Function
5. The kind of function in an object is called as
 a. State b. Behavior c. data d. Function
6. Which makes it easy to represent real system in software programs?
 a. object b. encapsulation c. abstraction d. polymorphism
7. Which function is defined to draw a rectangle?
 a. draw(side) b. draw(length, breath) c. draw(radius) d. draw(radius, start_angle, end_angle)
8. Which data type conventionally represents an object in the real world?
 a. object b. class c. encapsulation d. polymorphism
9. Which feature cannot access the unrelated member function?
 a. abstraction b. class c. encapsulation d. inheritance
10. Which model entities in the real world?
 a. object b. class c. Encapsulation d. polymorphism
11. Who coined C++?
 a. Dennis Ritchie b. Bjarne Stroustrup c. Dan bricklin d. Rick Mascitti
12. Like which languages do C++ contain character set?
 a. basic b. starbase c. C d. all the above
13. Which is not a keyword of C++?
 a. signed b. sizeof c. static d. struct
14. Which is an invalid identifier?
 a. ltest b. test1 c. _test1 d. _1test
15. An integer constant can be prefixed with
 a. + or – sign b. + or * sign c. – or * sign d. – or / sign
16. The default special character of string literal is
 a. /0 b. \0 c. |0 d. all of these
17. The non graphic character to produce a bell sound is
 a. \a b. /a c. \n d. ‘\a’
18. Operators are executed in the order of
 a. precedence b. equivalence c. association d. expression
19. Which gives the remainder of an integer division?
 a. / b. % c. * d. +
20. The operator used for post decrement is
 a. c++ b. ++c c. a+=c d. a+=2
21. Evaluation of 1+pow(3,2) results in
 a. 55 b. 7 c. 10 d. 9
22. The result of a relational operator is returned as
 a. 0 b. 1 c. true or false d. all of these
23. Which is not an assignment operator?
 a. a++ b. a+=4 c. a%=5 d. a-=2
24. Which terminates a C++ statement?
 a. // b. ; c. /**/ d. }

25. Which specifiers are automatically assigned with zero?
 a. auto and static b. static and extern c. extern and register d. static and register
26. What is the byte value of a long double?
 a. 2 b. 4 c. 8 d. 10
27. What is the value of z float f=8.5; int z=f;
 a. error b. 8 c. 9 d. 8.5
28. Which gives the remainder of an integer division?
 a. / b. % c. * d. +
29. Which is a bitwise operator?
 a. ~ b. ! c. && d. ,
30. What will be the value stored in the variable a? a=5, b=5, a=a+b++
 a. 11 b. 5 c. 6 d. 10

II. Answer the following questions:

10 x 2 = 20

31. Determine the order of evaluation of the expression (b*b)-4*a*c.
32. Evaluate the following C++ expressions: Assume a=15, b=3, d=1.5, c is integer and f is float.
 a) $f = a + b / a;$ b) $c = d * a + b;$
33. Find the output of the following C++ program: x = 15; f = 6; c = x++ + ++f;
34. If x=20, f=20, c=x++ + ++f; c is _____ x is _____ f is _____.
35. Explain conditional operator with example.
36. Write about the impact of modifiers in C++?
37. List out user defined data types.
38. What is meant by type definition?
39. What is meant by inheritance?
40. List the advantages of Object Oriented Programming.

VOLUME-II UNIT TEST - 2

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the correct Answer:**20 x 1 = 20**

1. In which year was C++ developed?
 - a. 1980's
 - b. 1970's
 - c. 1960's
 - d. 1990's
2. Who coined C++?
 - a. Dennis Ritchie
 - b. Bjarne Stroustrup
 - c. Dan bricklin
 - d. Rick Mascitti
3. Like which languages does C++ contain character set?
 - a. basic
 - b. Starbase
 - c. C
 - d. HTML
4. The character set of C++ constructs
 - a. variables
 - b. tokens
 - c. identifiers
 - d. keywords
5. Which is smallest unit in a C++ program?
 - a. variables
 - b. tokens
 - c. identifiers
 - d. keywords
6. Which is called as variables?
 - a. variables
 - b. tokens
 - c. identifiers
 - d. keywords
7. A variable should begin with an
 - a. alphabet
 - b. underscore
 - c. digits
 - d. alphabet or underscore
8. Which is an invalid identifier?
 - a. 1test
 - b. test1
 - c. _test1
 - d. _1test
9. An integer constant can be prefixed with
 - a. + or – sign
 - b. + or * sign
 - c. – or * sign
 - d. – or / sign
10. Escape sequence characters are prefixed using
 - a. \
 - b. /
 - c. “
 - d. ‘
11. The default special character of string literal is
 - a. /0
 - b. \0
 - c. |0
 - d. all of these
12. The non graphic character to produce a bell sound is
 - a. \a
 - b. /a
 - c. \n
 - d. \t
13. Based on operand requirements, operators are also classified as
 - a. unary
 - b. binary
 - c. ternary
 - d. all the above
14. Operators are executed in the order of
 - a. precedence
 - b. equivalence
 - c. association
 - d. expression
15. Which gives the remainder of an integer division?
 - a. /
 - b. %
 - c. *
 - d. +
16. The operator used for post decrement is
 - a. c--
 - b. --c
 - c. a=-c
 - d. a-=2

VOLUME-II UNIT TEST - 3

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the best answer:**20 x 1 = 20**

- Data is read from the keyboard during runtime by using the object ____
a) cout b) cin c) scanf() d) getdata()
- ____ file comprises the combined properties of istream and ostream.
a) stdio.h b) iostream.h c) conio.h d) string.h
- In order to use cin / cout objects one has to include _____ in the program
a) iomanip.h b) stdio.h c) ctype.h d) iostream.h
- Which one takes the value from the stream object to its left and places it in the variable to its right
a) >> b) << c) ## d) &&
- In which block one needs to give call statements to the various modules that needs to be executed
a) if block b) for block c) main() function d) switch block
- Which one of the following is defined only when memory is fetched to store data?
a) control variable b) main() c) loops d) pointer variables
- Program statements that cause jumps are called as _____
a) control statements b) control loop c) control variable d) both a & b
- In C++, Which one of the following is selection statement?
a) if...else b) loops c) switch d) if..else & switch
- _____ of a variable introduces a variable's name & its associated data type
a) operation b) declaration c) association d) condition
- _____ statement accomplishes jump from the current loop
a) while b) case c) break d) continue

Answer the questions 11 to 15 based on the program

```
# include <iostream.h>
# include <conio.h>
void main()
{
int x = 2, y = 4, t = 1, res = x;
while(t <= y)
{ res *= x; t += 1; }
cout << res;
getch();}
```

- Identify the control variable used.
a) t b) y c) t <= y d) res
- Identify the test expression
a) t b) res *= x; t += 1; c) t <= y d) res
- How many times will the loop be executed?

- a) 3 b) 5 c) 4 d) error
14. What is the output of the program?
a) 16 b) 32 c) 81 d) 8
15. What type of loop is this?
a) control loop b) exit-check loop c) entry-check loop d) out-check loop
16. Switch selection expression must be of _____ type
a) char b) enum c) int d) all the above
17. A looping block therefore consists of _____ segments
a) 2 b) 3 c) 4 d) 5
18. What is the output of the following snippet? `for(i=1;i<=1;cout<<i,i++);`
a) error b) 1 c) 1 2 b) 0
19. Compiler checks for the _____ of language
a) error b) grammar c) coding d) output
20. The machine-readable form of a program is called as _____
a) Object file b) source file c) program file d) compiler file

II. Answer all questions with one or two sentences:**10 x 2 = 20**

31. What are the different statements in C++?
32. What are control statements? What are two main categories of control structures?
33. What is the insertion or put to operator? Give examples.
34. What is nested loop and write the rules for the formation of nested loops.
35. Write the syntax of nested if statement.
36. What are the various sections of C++ program?
37. Write down the syntax of the following: i. if.....else ii. do....while
38. What are loops? Write its type.
39. What is the purpose of continue statement?
40. Point out errors in the following snippets:
a) `int a = 10, b = 5;
if a > b
cout << a;` b) `for(int I = 1; I < 10; I++)
cout << I * 2;`

III. Answer all questions with five or ten sentences:**2 x 5 = 10**

41. Discuss about for loop in C++.
42. Write syntax and explain switch statement with example.

VOLUME-II UNIT TEST - 4

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the best answer:**20 x 1 = 20**

1. _____ are also the executable segments in a program.
 a) arrays b) Functions c) statements d) coding
2. The starting point for the execution of a program is _____.
 a) #include<iostream.h> b) user defined function c) main () d) swap function
3. Function fact is executed _____
 a) more than once b) Only once c) two times d) five times
4. Which statement marks the end of the function and also transfers control to the statement after call statement
 a) break b) return c) continue d) getch()
5. Declaration of a function is made through a _____
 a) function prototype b) data type c) main prototype d) compiler
6. Which of the following in the prototype act as place holders?
 a) constants b) Strings c) functions d) variables
7. The call statement communicates with the function through
 a) arguments b) parameters c) a or b d) a and b
8. In which method, the formal parameters become alias to the actual parameters
 a) call by value b) call by reference c) call by function d) call by variable
9. Which function executes faster but requires more memory space?
 a) Normal function b) actual function c) void function d) Inline function
10. Which of the following is a scope resolution operator?
 a) : b) ; c) :: d) .*
11. The return type of the function prototype float power(float, int); is _____
 a) char b) float c) double d) int
12. The function that returns no value is declared as _____
 a) main b) friend c) void d) online
13. Which function does insert the function's code directly into the calling program?
 a) main b) friend c) Inline d) online
14. The calling function parameters are called as _____
 a) formal parameters b) actual parameters c) dummy parameter d) duplicate parameter
15. Which one of the following scope variable's lifetime is the lifetime of a program?
 a) Class b) Function c) File d) Local
16. Which variable is defined with in a block?
 a) Local b) Class c) Function d) File

17. The life time of a _____ scope variable is the life time of the function block.
a) Local b) Class c) Function d) File
18. The data type of the function is treated as _____, if no data type is explicitly mentioned.
a) float b) char c) void d) int
19. Which one of the following is leading to saving of memory space and reduction in code size?
a) Reusability of code b) pointers c) variable d) inline function
20. _____ keyword is just a request to the compiler
a) main b) friend c) online d) inline

II. Answer the following questions in one or two sentences:**10 x 2 = 20**

21. Write a note on inline function.
22. Write the advantages of using functions.
23. What is the main purpose of function prototype?
24. Differentiate between call by value and call by reference.
25. What are functions?
26. What are the information provided by prototype to the compiler?
27. What is calling function?
28. What is meant by void function?
29. What is the use of scope resolution operator?
30. What are the rules for actual parameter?

III. Answer the following questions in five to ten sentences:**2 x 5 = 10**

31. What are the different ways of passing parameters in C++ functions? Explain any one method.
32. Name the types of scope and write about the local scope of variable in C++?

VOLUME-II UNIT TEST - 5

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the best answer:**20 x 1 = 20**

1. An array is a _____ data type.
 - a) Derived
 - b) Arrived
 - c) Build in data type
 - d) User-defined
2. The size of the array should always be _____.
 - a) Negative
 - b) positive
 - c) True
 - d) False
3. Memory allotted for `int num_array[10]`; is _____ bytes
 - a) 10
 - b) 40
 - c) 20
 - d) 15
4. The array subscripts always commences from
 - a) 1
 - b) 2
 - c) integer
 - d) zero
5. One can rearrange the data in a given array is called _____.
 - a) merging
 - b) combining
 - c) sorting
 - d) inserting
6. Which dimensional array comprising of elements, each of which is itself a one- dimensional array
 - a) Multi dimensional
 - b) Single dimensional
 - c) Zero dimensional
 - d) None
7. A _____ array should be terminated with a '\0' (NULL) character.
 - a) number
 - b) integer
 - c) float
 - d) character
8. There are _____ methods to display the contents of string
 - a) two
 - b) three
 - c) one
 - d) five
9. How many parameters required for `write ()` function
 - a) Three
 - b) Two
 - c) Four
 - d) One
10. _____ function returns the number of characters stored in the array.
 - a) `strcmp()`
 - b) `strcpy()`
 - c) `Strlen()`
 - d) `strlen()`
11. Arrays can be passed on as _____ to functions
 - a) arguments
 - b) numbers
 - c) characters
 - d) reference
12. In `int num[]={1,2,3,4,5,6,7}`; `num[5]` refers to
 - a) 5
 - b) 6
 - c) 7
 - d) 4
13. Number of elements will be stored in the array `int sales [2] [4]` _____.
 - a) 24
 - b) 4
 - c) 8
 - d) 2
14. A _____ is a set of mn numbers arranged in the form of a rectangular array of m rows and n columns
 - a) worksheet
 - b) matrix
 - c) rows
 - d) column
15. Second index (column) in two dimensional array determines maximum _____ of each string
 - a) width
 - b) size
 - c) elements
 - d) length
16. Attaching the _____ to each string literal is optional

- a) number b) integer c) null character
17. Dimension of an array should be only a/an _____
a) integer b) float c) double d) number
18. _____ assignment of array is not allowed
a) single b) Group c) double d) variable
19. Subscript value is enclosed with _____
a) [] b) {} c) () d) <>
20. Strings are also called as _____
a) Strings b) Variables c) Literals d) Vales

II. Answer the following questions with one or two sentences:

15 x 2 = 30

21. What is meant by array of characters?
22. Explain the memory representation of 2D-array?
23. What is sorting?
24. What is an array? Write its different types.
25. Write the purpose and value returned of strcmp() string manipulator?
26. What are the methods to display contents of the string?
27. How does the array behave when passed to a function?
28. How will you declare two dimensional array? Give example.
29. What is array of string? Give example?
30. What are the two types of arrays? Define them.
31. Explain the function strcpy?
32. Write a note on write() function?
33. Find the errors in the following C++ snippets. a) int a[5.5]; b) float num[A];
34. Write the syntax for single dimensional array?
35. What are strings? Give example.

VOLUME-II UNIT TEST - 6

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the correct Answer:**20 x 1 = 20**

1. The most important feature of C++ is the _____.
 a) Inheritance b) Polymorphism c) Class d) Data hiding
2. A class is a new way of creating and implementing a _____ data type
 a) derived b) user defined c) built in d) void
3. A class specification has _____ parts
 a) two b) three c) ten d) only one
4. The keyword _____ specifies user defined data type class name
 a) object b) private c) public d) class
5. The body of a class is enclosed within _____ and is terminated by a _____
 a) ; and {} b) {} and ; c) : and {} d) {} and :
6. The class body has _____ visibility labels
 a) one b) two c) three d) four
7. By default the members will be treated as _____ if a visibility label is not mentioned
 a) private b) protected c) public d) class
8. _____ is the key feature of object oriented programming
 a) Data hiding b) Encapsulation c) class d) array
9. _____ are the data variables that represent the features or properties of a class
 a) methods b) functions c) members d) Data members
10. Classes include special member functions called as _____
 a) constructors b) destructors c) both a & b d) methods
11. In C++ the class variables are known as _____
 a) objects b) methods c) attributes d) identifiers
12. The members of a class are accessed using the _____ operator.
 a) * b) -> c) dot d) =
13. The member functions declared under _____ can be accessed by the objects of that class
 a) private b) protected c) class d) public
14. The members defined within the class behave like _____ functions.
 a) inline b) member c) friend d) static
15. The _____ tells the compiler that the function belongs to the class.
 a) object b) membership label c) data type d) function
16. _____ can also be passed as arguments
 a) Objects b) keywords c) data d) all of these

17. The static member variable is initialized to zero _____ .
a) two b) many c) not allowed d) only once
18. The initial value to a _____ member variable is done outside the class
a) class b) static c) extern d) register
19. The class name is also called as _____
a) variables b) object c) instance d) tag
20. The object is also called as _____
a) instance b) variables c) tag d) class

II. Answer any fifteen of the following questions:

15 x 2 = 30

21. What is class? Give example.
22. What are the two parts of class specifications?
23. Write the general form of class declaration.
24. What is data abstraction?
25. What is meant by data hiding?
26. Define encapsulation?
27. What are the members of class? Explain.
28. Explain the two methods of creating objects in C++.
29. How are the class members accessed?
30. Explain the two ways of defining methods of a class in C++.
31. Write the prototype of member functions defined outside the class.
32. Write the characteristics of member function.
33. Write about static data member.
34. Write short notes on memory allocation of objects.
35. Explain the access specifiers of a class.
36. Write a note on array of objects.

VOLUME-II UNIT TEST - 7

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the correct Answer:**20 x 1 = 20**

- Which one of the following operator overloading through a member function take one explicit argument?
 - Unary
 - Ternary
 - Binary
 - Conditional
- The word _____ means many forms.
 - Inheritance
 - Polymorphism
 - Overloading
 - Encapsulation
- In C++, polymorphism is achieved through _____
 - function overloading
 - operator overloading
 - many shapes
 - both a & b
- The term _____ means a name having two or more distinct meanings
 - Inheritance
 - overloading
 - Encapsulation
 - Polymorphism
- An _____ function refers to a function having more than one distinct meaning.
 - overloaded
 - inline
 - constructor
 - Destructor
- _____ overloading is one of the facets of C++ that supports object oriented programming.
 - operator
 - constructor
 - Function
 - Destructor
- Which one of the following overloaded function parameter is correct:
 - float area(int radius);
int area(float length);
 - float area (int half, int base);
float area (int length, int breath);
 - float area (float length , float breadth);
float area (float half , float base);
 - float area(int radius);
int area(int radius);
- _____ for each overloaded function prototype can be of different data type.
 - overriding
 - data type
 - overloading
 - Arguments
- The compiler adopts _____ strategy while calling overloaded function.
 - match best
 - best match
 - right match
 - match right
- Integral promotions are purely _____ oriented.
 - data type
 - variable
 - compiler
 - function
- char data type can be converted to
 - integer
 - float
 - double
 - All of these
- Which one of the following operator cannot be overloaded?
 - ::
 - +
 -
 - +=
- Which one of the following string function is used to concatenate two strings?
 - strlen()
 - strcmp()
 - strcat()
 - strcpy()
- The functionality of '+' operator can be extended to strings through _____ overloading.
 - function
 - operator
 - variable
 - object
- Declare the operator function operator () in the _____ part of the class.

- a) private b) protected c) public d) any of these
16. There are _____ types of overloading.
 a) one b) two c) three d) four
17. ____ function must be either member functions or friend function.
 a) constructor b) inline c) overloaded d) Destructor
18. Which one of the following is a membership operator?
 a) . b) ?: c) :: d) sizeof()
19. Which one of the following is a scope resolution operator?
 a) . b) ?: c) :: d) sizeof()
20. Which one of the following operator can be overloaded?
 a) :: b) new c) unary d) ?:

II. Answer all the questions:**10 x 2 = 20**

21. How are the function invoked in function overloading?
22. List out the operators that cannot be overloaded.
23. What are the various processes involved in operator overloaded?
24. What is function overloading?
25. What is operator overloading?
26. What are the possible integral promotions of data?
27. How is polymorphism achieved?
28. What is integral promotion of data?
29. What does the term operator overloading refer to?
30. List out the operators that can be overloaded.

III. Answer any two of the following questions:**2 x 5 = 10**

31. What are the various rules while overloading operators in C++?
32. Explain function overloading with rules.
33. What is operator overloading? Explain operator overloading with example?

VOLUME-III UNIT TEST- 1 & 10=12

Class : XII
Subject : Computer Science

Marks : 50
Time : 1:00 Hrs.

I. Choose the correct Answer:**20 x 1 = 20**

1. Which one of the following is a tool to solve a wide range of problems?
 a) C++ b) C c) Calculator d) computer
2. In the early programming languages the input and output data items were represented as _____
 a) variables b) data c) numbers d) characters
3. Which one of the following is Object oriented programming language?
 a) C b) FORTRAN c) C++ d) COBOL
4. The group of data and the operations together are termed
 a) class b) object c) variables d) function
5. The differential response of the function based on different inputs is what is called as
 a) polymorphism b) inheritance c) class d) object
6. To reach out the benefits of IT to the common man we need at least ____ technical elements
 a) One b) Two c) three d) Four
7. How many percentage of computer usage is “Word Processing”?
 a) 60% b) 80% c) 85% d) 90%
8. ____ have changed our life style
 a) Browsing b) e-mail c) chat d) all of these
9. ____ Enables data storage and management.
 a) Archive Unit b) Emotion Containers c) Personal Archives d) Memo Frame
10. ATM is an acronym for a) Automatic Teller Machine
 b) Automated Teller Machine c) Automatic Transfer Machine d) Automated Transfer Machine
11. _____ greatly increases the employment opportunities.
 a) e-Governance b) Call Centers c) Website Services d) ITES
12. Which one of the following is not IT enabled service?
 a) E-Learning b) Data Management c) Medical d) Data Digitization
13. A _____ is sometimes defined as a telephone based shared service center
 a) Internet b) call center c) both a & b d) E-Learning
14. Which of the following is an important aspect that must be ensured by the ITES provider in this area?
 a) Data Security b) Customer Privacy c) both a & b d) ITES
15. How many steps are involved in medical transcription?
 a) 1 b) 2 c) 3 d) 4
16. Computer ethics has its roots in the work of ____ during World War II
 a) Robert Wiener b) Dennis Ritche c) *Bjarne Stroustrup* d) Norbert Wiener

17. During _____ many universities introduced formal course in computer ethics.

- a) 1990 b) 1960 c) 1980 d) 1999

18. Which security is usually provided by restricting the people who can access the resources?

- a) Personal Security b) Physical Security c) Personnel Security d) all

19. Which one of the following is not a computers crime?

- a) Virus b) Computer Ethics c) Cracking d) Theft of computer time

20. How many percentage of the computer crimes happen within the company?

- a) 60% b) 75% c) 80% d) 100%

II. Answer any fifteen of the following questions in one or two sentences each:

15 x 2 = 30

21. Define object.

22. Define Encapsulation.

23. Define Polymorphism.

24. List the advantages of Object Oriented Programming.

25. What is meant by e-learning?

26. What is the use of ATM?

27. What is e-Banking?

28. What is Memo Frame?

29. Define Data Management.

30. What is a medical transcription?

31. What is data digitization?

32. What is IT enabled service?

33. What is meant by Piracy?

34. Write a note on virus.

35. Define cracking.

36. What is computer crime?

REVISION EXAM-I = VOLUME-II

Class : XII
Subject : Computer Science

Marks : 150
Time : 3.00 Hrs.

I. Choose the correct answer:

75x1=75

1. A computer program operates on a set of known _____ data items.
a. input b. output c. software d. hardware
2. In the early programming languages the input and output data items were represented as _____.
a. constant b. variable c. float d. integer
3. Same function name given to more than one function is called _____.
a. inheritance b. encapsulation c. class d. polymorphism
4. Data hiding or Abstraction of data provides _____ to data.
a. lock b. security c. application d. usage
5. The name C++ was coined by _____.
a. Ken thompson b. Rick Mascitti c. BjarneStroustrup d. Charles babbage
6. Escape sequences are represented using characters prefixed with a _____.
a. + b. * c. / d. \
7. '\0' character marks the _____ of a string.
a. top b. end c. middle d. beginning
8. _____ allow users to define user defined data type identifier.
a. User defined type b. Built in type c. Derived type d. Type definition
9. Int range is _____.
a. -32767 to 32767 b. -32768 to 32767 c. 32767 to -32767 d. -32768 to -32768
10. Variable of the same data type should be separated by _____.
a. comma b. full stop c. semi colon d. colon
11. Pointer variable are _____ to the data type they point to.
a. Case sensitive b. non sensitive c. sensitive d. upper case sensitive
12. The different basic statements of C++ are _____.
a. Input/Output b. Assignment c. Control structures d. All the above
13. Snippet is a _____ program.
a. small b. big c. full d. segment
14. Declaration of variable done _____ they are used in a program.
a. before b. after c. any time d. anywhere
15. Converting one data type automatically to another is called _____ conversion.
a. implicit b. explicit c. manual d. compiler
16. for loop is used when an action is to repeated for a predetermined _____ of times.
a. one b. two c. three d. number

Read the following C++ program and answer the question from 12 to 16

```
#include <iostream.h>
void main()
{
int i=10;
do
{
cout<<i * i<< '\t';
i-=1;
}
While ( i> 5)
}
```

17. Name the control variable used in the program _____.
a. i b. - = 1 c. \t d. None of these
18. What is the text expression (condition) is used?
a. i * i b. i c. (i>5) d. i - = 1
19. How many times loop will be executed?

- a. 6 b. 5 c. 7 d.10
20. What is the output of the following program?
a. 100 99 98 97 b. 100 81 64 49 36 c. 36 49 58 65 d. 10 100 1000 10000
21. The advantages of functions are _____
a. can be repeated b. called anywhere c. called any time d. all the above
22. Declaration of function is made through the function _____
a. prototype b. object c. method d. class
23. With function prototyping, a _____ is always used when declaring and defining a function.
a. interpreter b. compiler c. template d. C++
24. The function name may include set of _____ parameters.
a. formal b. dummy c. actual d. variable
25. Actual and formal parameters have _____ memory location in reference type.
a. same b. different c. one d. many
26. In C++ , one can assign default values to the _____ parameters of the function prototype.
a. formal b. dummy c. actual d. variable
27. When the functions are small, the compiler replaces the function call statement by its definition. This is ____
a. outline function b. inline function c. center line function d. bottom line function
28. The scope operator reveals the hidden scope of a _____
a. module b. variable c. program d. function
29. An _____ in C++ is derived data type that can hold several values of the same type.
a. inline function b. variable c. array d. constant
30. An array is a collection of _____ of the same type that are referenced by a common name.
a. constant b. variable c. data d. values
31. Array elements can be accessed by array _____ and the position of the element in the array.
a. position b. constant c. name d. class
32. cin>>number [4] reads _____ element. a. 1 b. 2 c. 3 d. 5
33. The elements are stored either _____
a. row-wise b. column wise c. both a & b d. horizontal
34. In case of array, the _____ parameter is passed only by the identifier, ignoring dimensions
a. formal b. actual c. one d. many
35. Matrices can be represented through _____ dimensional arrays.
a. 1 b. 2 c. 3 d. 5
36. Data members are _____ that represent the features or properties of a class.
a. constant b. variable c. method d. function
37. The keyword class specifies user defined data type _____ name.
a. method b. class c. variable d. constant
38. The access specifiers of the class body are _____
a. private b. public c. protected d. all the above
39. _____ is the key feature of object oriented programming.
a. data hiding b. encapsulation c. polymorphism d. class
40. Member function are called as _____
a. class b. object c. function d. method
41. The members defined within the class behave like _____ functions
a. inline b. declaration c. prototype d. definition
42. In static variable, _____ copy of the member variable is created.
a. only one b. zero c. three d. any number
43. The static variable is initialized to zero only _____
a. 5 times b. 4 times c. 3 times d. once
44. The term overloading means a name having _____ distinct meanings.
a. one b. two c. two or more d. three
45. Arguments for each prototype can be of different _____
a. methods b. constants c. data types d. variables
46. The number of arguments for each function prototype should _____
a. same b. different c. both a & b d. none
47. Which one of the operator cannot be overloaded?

- a. membership operator b. scope resolution operator c. size of operator d. all the above
48. In operator overloading, – operator used as _____
a. negation b. subtraction c. both a & b d. either a or b
49. The overloaded operator must have at least one operand of _____ type.
a. simple b. user defined c. standard d. primitive
50. Do not use the same function name for two _____ function.
a. related b. unrelated c. same d. different
51. The constructor function name and the destructor have the same name as the _____ tag.
a. object b. variable c. function d. class
52. constructor returns _____
a. integer b. Boolean c. character d. nothing
53. _____ is called at the time of program termination.
a. class b. constructor c. destructor d. object
54. Constructor are special _____ of classes.
a. variables b. objects c. function d. none
55. The constructor add(int s1,int s2) is called as _____ constructor.
a. parameterized b. object c. class d. function
56. char, float, double parameters can be matched with int data type due to _____ type conversion.
a. explicit b. auto c. implicit d. both a & c
57. _____ is a function that removes the memory of an object.
a. Destructor b. Constructor c. class d. object
58. Inheritance is a process of creating new classes from existing or _____
a. base class b. new class c. derived class d. old class
59. Code developed for one application can be used in another application is called _____
a. Reusability code b. code sharing c. consistency of interface d. all the above
60. _____ is a class from which other classes are derived.
a. derived class b. new class c. base class d. old class
61. The type derivation of the derived class can have _____
a. private b. public c. protected d. all the above
62. Access specifier is also referred to as _____
a. visibility mode b. Accessibility c. derived d. base class
63. When a sub class inherits only from one base class, it is known as _____
a. single inheritance b. multiple inheritance c. multilevel inheritance d. all the above
64. _____ are mounted on the wall to provide better effect and save floor space.
a. LCD Screen b. camera c. speakers d. all the above
65. Introduction of IT in banks reduced the _____
a. Time b. Queue c. both a & b d. money
66. We can purchase any product, any brand and any quantity from anywhere through _____
a. banking b. e-shopping c. e-banking d. e-learning
67. We can reserve of book air and train tickets through _____
a. computer b. agents c. internet d. none
68. The various websites provided by the government give the details about the departments is _____
a. g-governance b. c-governance c. e-governance d. b-governance
69. _____ is the key for effective and profitable use of IT in organizations.
a. database b. base management c. data management d. management
70. Reader response can be captured and processed from any hard copy or faxed document by _____
a. hand written b. machine print c. mark sense d. bar coding
71. In medical transcription the digitized data is converted back to _____
a. video b. data c. sound d. picture
72. _____ is the set of rules for determining moral standards.
a. ethics b. basics c. privacy d. information
73. _____ security refers to software setups that permit only authorized access to the system.
a. physical b. personal c. personnel d. none
74. People are tend to pirate because _____
a. we like free things b. huge payments c. our thinking and actions are self-serving d. all the above

75. ___ new viruses are found each day.
 a. 8 b.5 c. 6 d. 52000

II. Answer any twenty of the following questions:

20 x 2 = 40

76. How is polymorphism different from inheritance?
 77. What is meant by identifiers? Give example.
 78. What are arithmetic operators?
 79. What is storage class and how many storage specifiers are there?
 80. What are pointer variables?
 81. Write the syntax of nested if statement.
 82. What are the various sections of a C++ program?
 83. What is the main purpose of using function prototype?
 84. Find the output of the following statements. a. X=5; Y=6; Z= X++ + ++Y; b. A= 10; B=20; C
 = ++A + ++B;
 85. What will the output of the program?

```
#include<iostream.h>
#include<conio.h>
void main ()
{
int ctr = 10;
for( ; ctr>= 6; ctr - -)
cout<<ctr<< '\n'; }
```

 86. Differentiate between call by value and call by reference.
 87. What is the use of strcmp() function?
 88. Find the errors in the following C++ snippets. a. int a[7.7];b. float num [B];
 89. What are the two parts of class specifications?
 90. What are different ways of creating objects?
 91. How are the functions invoked in function overloading?
 92. What is operator overloading?
 93. Write the rules for destructor definition and usage.
 94. What are the functions of constructor?
 95. Match the following for the class myclass.

1. myclass()	-	copy constructor
2. myclass (int x, int y)	-	method
3. void show()	-	default constructor
4. myclass(myclass &a)	-	parameterized constructor

 96. What is an abstract class?
 97. What is meant by e-learning?
 98. What is the use of call centers?
 99. What is IT enabled service?
 100. List out some common computer crimes.

III. Answer any seven of the following questions:

7 x 5 = 35

101. Write the syntax and explain switch statement with example.
 102. What are entry check loops? Explain with example.
 103. Explain about general working of for loop in C++.
 104. Write about the difference scopes of a variable in C++
 105. Explain call by reference method of function in C++.
 106. Explain inline function with example.
 107. What is function overloading? What are rules for function overloading?
 108. Explain the different types of inheritance.

109. Debug the errors in the following C++ program:

```
#include<iostream h>
Class A
{
Private
int a;
public;
int a2;
Void getdata{}
{
a1 = 3; a2=5; a3=5;
}
protected
int a3;
}
Class B :: public A()
{
Public:
voidfunc()
{
int b1;b2;b3;
getdata{};
b1=a1;
b2=a2 ;
a3=b3;
cout>>b1>>b2>>b3;
}
}
void main[]
{
B der;
d.func();
}
```

110. Write the output of the following C++ program: www.Padasalai.Net

```
#include<iostream.h>
#include<conio.h>
class product
{
private:
int x,y;
public:
product()
{
x=0; y=0;
cout<<"\n constructor of class product...";
}
~product()
{
cout<<"\n destructor of class product...";
}
void getdata()
{
x=5; y=10;
}
viod display()
{
cout<<"\n the two integers are..."<<x<<'t'<<y;
cout<<"\n the product of the integers are ..."<<x*y;
}
};
void main()
{
product p;
p.getdata();
p.display();
}
```

Class : XII
Subject : Computer Science

Marks : 150
Time : 3:00 Hrs.

I. Choose the correct answer:

75 x 1 = 75

1. Which among the following makes it easy to represent real systems in software programs?
 a) Object b) Control Statements c) Computer d) Data hiding
2. Which is template for entities that have common behaviour?
 a) Class b) Object c) Variables d) Attributes
3. Which one of the following is Object Oriented Programming language?
 a) C b) C++ c) BASIC d) SQL
4. The name C++ was coined by
 a) Bjarne Stroustrup b) Rick Mascitti c) Dennis Ritchie d) Charles Babbage
5. Basic types of elements are _____
 a) variables b) constants c) arrays d) tokens
6. Which one of the following is a data item whose values cannot be changed?
 a) Constants b) variables c) strings d) pointer
7. Floating Point Constant 5.864E1 is equal to
 a) 5.864 b) 58.64 c) 586.4 d) 5864
8. The escape sequence '\n' represents the non-graphic character
 a) Null b) Space c) New Line d) Bell
9. Which one of the following operator is unique to C++?
 a) ++ b) >> c) << d) ?:
10. a=(20>30); The value stored in a is _____
 a) 20 b) 30 c) 1 d) 0
11. Which one of the following operator has lower precedence than others?
 a) Logical b) relational c) assignment d) arithmetic
12. The range of char data type is
 a) -127 to 128 b) 0 to 255 c) -128 to 127 d) -32768 to 32767
13. Number bytes allocated for long data type is
 a) 2 b) 4 c) 8 d) 10
14. Which is a predefined object that corresponds to a standard input stream?
 a) cin b) cout c) write d) gets
15. The control structures are implemented in C++ by _____ ways.
 a) two b) three c) only one d) many
16. Which is the simplest of all the decision statements?
 a) switch b) for c) if..else d) if
17. Switch selection expression must be of _____ type
 a) float b) integral c) double d) void
18. A looping block consists of _____ segments
 a) two b) three c) four d) one
19. Which segment is executed only once, when the loop is executed for the first time?
 a) Initialization b) Test condition c) increment d) loop body
20. Which statement accomplishes jump from the current loop?
 a) continue b) break c) for d) case
21. A Program written in high level language is called as
 a) Source Code b) executable code c) Object file d) compiler code
22. Which statement marks the end of the function?
 a) } b) ; c) return d) break
23. Declaration of a function is made through
 a) function name b) function prototype c) function type d) function parameters
24. Set of actual parameters are enclosed in parentheses separated by _____

- a) commas b) : c) ; d) ()
25. The parameters associated with function header are called as _____ parameters
a) actual b) real c) formal d) function
26. Which amongst the following can be passed to formal parameters of reference type in C++ ?
a) constants b) variable c) expression d) values
27. The data type of a function is treated as _____, if no data type is explicitly mentioned.
a) int b) float c) char d) void
28. A _____ scope variable is created upon entry into its block and destroyed upon exit
a) local b) function c) class d) file
29. In order to handle large data with ease, elements belonging to the same data type are declared as
a) function b) arrays c) class d) object
30. In the array num[3] = 99, it stores the value 99 as the _____ element in the array num.
a) 3rd b) 2nd c) 5th d) 4th
31. A character array should be terminated with a _____ character.
a) \0 b) /0 c) ; d) []
32. Which one of the following is not an input statement?
a) cin b) gets() c) write() d) getline
33. String manipulators defined in
a) iostream.h b) string.h c) conio.h d) ctype.h
34. The dimensions (rows/columns) of an array cannot be indicated using
a) integer b) float c) enum d) const
35. _____ provide a method for packing together data of different types
a) Class b) object c) inheritance d) polymorphism
36. The body of the class is enclosed within
a) [] b) {} c) () d) <>
37. The members that have been declared as ____ can be accessed from within the class, and the members of the inherited classes
a) public b) private c) protected d) unprotected
38. Data abstraction is achieved through
a) variable hiding b) constant hiding c) class hiding d) data hiding
39. Classes include special member function called
a) Function overloading b) Operator Overloading c) Constructor d) Member function
40. The binding of data and functions together into a single entity is referred to as
a) encapsulation b) inheritance c) polymorphism d) class
41. Which statement can be read as "stud is an instance or object of the class student"?
a) stud student ; b) class student stud; c) class student (stud); d) student stud;
42. The members of a class are accessed using the _____ operator
a) . (dot) b) , (comma) c) ; (semi colon) d) : (colon)
43. Which of the following can also be passed as arguments to class member function?
a) operators b) Objects c) function d) class
44. 1. Which one of the following operator overloading through a member function take one explicit argument?
a) Unary b) Ternary c) Binary d) Conditional
45. An _____ function refers to a function having more than one distinct meaning.
a) overloaded b) inline c) constructor d) Destructor
46. Integral promotions are purely _____ oriented.
a) data type b) variable c) compiler d) function
47. Which one of the following operator cannot be overloaded?
a) :: b) + c) -- d) +=
48. The functionality of '+' operator can be extended to strings through _____ overloading.
a) function b) operator c) variable d) object
49. Which one of the following is a membership operator? a) . b) ?: c) :: d) sizeof()
50. The _____ function initializes the class object
a) inline b) constructor c) destructor d) user defined

51. ____ is not associated with any data type
 a) constructor b) array c) class d) object
52. The _____ is automatically executed when the object is created
 a) variables b) functions c) destructor d) constructor
53. _____ overloading can be applied for constructors
 a) Operator b) function c) variable d) both a & b
54. char float and double parameters can be matched with _____ data type due to implicit type conversions
 a) unsigned char b) long double c) signed float d) int
55. Primarily _____ declared anywhere within the program can be overloaded
 a) variable b) functions c) array d) class
56. The destructor function prefixed by the _____ character
 a) ~ b) = c) * d) #
57. The destructor function should be declared under _____ visibility mode.
 a) private b) protected c) public d) any one of these
58. The _____ function executes at the time of program termination
 a) inline b) constructor c) destructor d) member
59. The most powerful feature of an object oriented programming language is _____
 a) array b) class c) constructor d) inheritance
60. The keyword _____ has to be used to derive derived class from base class
 a) class b) abstract c) object d) tag
61. Access specifier is also referred to as
 a) inheritance b) qualifiers c) modifiers d) visibility mode
62. When a class is derived from a class which is a derived class itself is referred to as _____ inheritance.
 a) Single b) Hybrid c) Multilevel d) Multiple
63. Objects for these classes are not declared is called ____ class
 a) abstract b) base c) derived d) derived2
64. It is interesting to observe that _____ of computer usage is “Word Processing”.
 a) 80% b) 85% c) 60% d) 90%
65. Which can prevent people from acquiring bad habits
 a) LCD Screen b) Archive Unit c) Personal Archives d) Emotion Containers
66. You can purchase any product, any brand, any quantity from anywhere through
 a) e-learning b) e-shopping c) e-banking d) e-buying
67. You can reserve or book air and train tickets through
 a) computers b) internet c) reservation d) cell phones
68. A device which is used to convert the speech into a letter is an ITES is _____
 a) cell phone b) micro phone c) head phone d) Dictaphone
69. Which of the following is critical for the success of ITES?
 a) crackers b) Computer Ethics c) computer crime d) data digitization
70. How many main steps are involved in Medical Transcription?
 a) three b) seven c) nine d) five
71. Which of the following non-digital material can be converted to digital form?
 a) maps b) manuscripts c) moving images d) all the above
72. Which security is usually provided by restricting the people who can access the resources?
 a) physical b) personal c) personnel d) Anti-Virus
73. Illegal use of idle computer in an organization is called as _____
 a) Theft of Computer Time b) Cracking c) Virus d) Violating Computer Ethics
74. How much percentage of computer crimes are unreported?
 a) 80% b) 85% c) 60% d) 65%
75. The “Ten Commandments of Computer Ethics” was written by _____
 a) Donn Parker b) Norbert Weiner c) Computer Ethics Institute d) All of these

II. Answer any twenty of the following questions in one or two sentences each:**20 x 2 = 40**

76. Define object. 77. Explain conditional operator with example. 78. Give any two uses of void data type.

79. Write about the impact of modifiers in C++? 80. What are the four storage specifiers in C++?
81. What are control statements? What are two main categories of control structures?
82. What are the different statements in C++? 83. What are the information provided by prototype to the compiler?
84. What are the rules for actual parameter? 85. What is an array? Write its different types.
86. Find the errors in the following C++ snippets. a) int a[5.5]; b) float num[A];
87. Write the syntax for single dimensional array? 88. What are strings? Give example.
89. Write the characteristics of member function. 90. What are the two parts of class specifications?
91. Write the general form of class declaration. 92. Explain the two methods of creating objects in C++.
93. List out the operators that can be overloaded. 94. What is constructor?
95. When is copy constructor executed? 96. Write syntax for creating a derived class from base class.
97. What is ATM? 98. Define cracking. 99. What is data digitization? 100. What is IT enabled service?

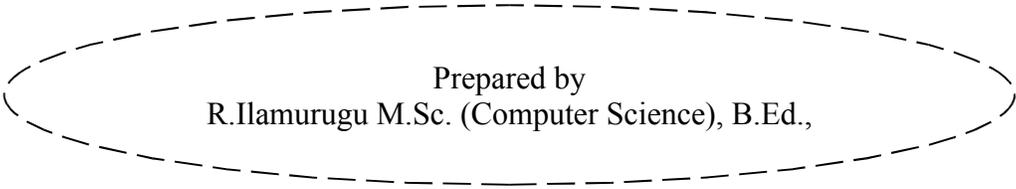
III. Answer any seven of the following:

7 x 5 = 35

101. Explain any one of the loops in C++ with example. 102. Write syntax and explain switch statement with example.
103. Explain call by reference method with example. 104. What is scope? Explain local scope with example.
105. What are the various rules while overloading operators in C++? 106. Explain function overloading with example.
107. What is constructor? Explain the rule of constructors. 108. Explain the different types of inheritance.
109. Debug the following C++ program. 110. Write the output of the following C++ program.

```
#include<iostream.h>
#include<conio.h>
class distance;
[
Int feet,inches;
Public;
void distance_assign(int f, int i)
{
feet = f
inches = i;
}
void display(
{
cout << "\nFeet :'" << feet<< "\tInches :'" << inches;
}
}
distance operator+(distance d2)
{
distance d3;
d3.feet = feet + d2.feet;
d3.inches = (inches + d2.inches) % 12;
d3.feet += (inches + d2.inches)/12;
return d3;
}
}
void main
{
clrscr()
distance dist_1,dist_2;
dist_1.distance_assign(12,11)9
dist_2.distance_assign(24,1);
distance dist_3 = dist_1 + dist_2;
dist_1.display();
dist_2.display();
dist_3.display();
getch[];
};
```

```
#include<iostream.h>
#include<conio.h>
void fun (char a, int times)
{
for (int i=1; i<=times;i++)
cout<<a;
cout<<'\n';
}
void fun(int times=5, char a= '*')
{
for(int i=1;i<=times;i++)
cout<<a;
cout<<'\n';
}
void main()
{
fun ('+',3);
fun();
}
```



Prepared by
R.Ilamurugu M.Sc. (Computer Science), B.Ed.,