

Department of Computer Science(S.F)
I-B.Sc.Computer Science – Question Bank – K1 level
18UCS204-OBJECT ORIENTED PROGRAMMING USING C++

UNIT-I

1. Constant variables can be created in CPP by using _____ .

- a. enum
- b. const
- c. #define
- d. All of these
- e. None of these

Answer: d

2) Object oriented programming employs_____ programming approach.

- a. top-down
- b. procedural
- c. bottom-up
- d. all of these.

Answer: c

3) In CPP, cin and cout are the predefined stream _____ .

- a. Operator
- b. Functions
- c. Objects
- d. Data types

Answer: c

4) _____are used for generic programming.

- a. Inheritance
- b. Virtual Functions
- c. Templates
- d. None of these

Answer: c

UNIT-II

5) Can a class be declared/defined inside another class ?

- a. Yes
- b. No

Answer: a

6) The CPP compiler supports automatic type conversions for the user defined datatypes.

- a. True
- b. False

Answer: c

7) Which one is suitable syntax for function template?

- a. `template< class T> return_type Function_Name(parameters)`
- b. `template< typename T> return_type Function_Name(parameters)`
- c. both a and b
- d. None of these

Answer: c

8) A class can contain objects of other classes and this phenomenon is called_____ .

- a. Relationship
- b. Object Association
- c. Containership
- d. None of these

Answer: c

9) While redefining a virtual function in the derived class, if its prototype is changed then _____ .

- a. It will be overloaded by the compiler
- b. Its virtual nature will be lost
- c. both a and b
- d. Compiler will generate “Prototype mismatch error”

Answer: d

10) Object based language differs from object oriented language as it does not support features _____ .

- 1. Encapsulation
- 2. Inheritance
- 3. Dynamic Binding
- 4. Abstraction
- 5. Polymorphism

- a. only 3 ,4
- b. only 1,3,5
- c. 2,4,5
- d. Only 2,3

Answer: b

11) Classes in CPP are_____ .

- a. derived data types
- b. User defined data types
- c. built-in data types
- d. All of these

Answer:

12) If a class contains static variable, then every object of the class has its copy of static variable.

- a. True
- b. False

Answer: b

13) Which of the followings is/are not keyword/s in CPP?

1. asm
 2. boolean
 3. mutable
 4. export
 5. constant_cast
- a. Only 5
 - b. Only 1 and 4
 - c. Only 1,2 and 5
 - d. Only 2 and 5

Answer: d

14) _____ is the OOP feature and mechanism that binds together code and the data it manipulates, and keep both safe from outside world.

- a. Data Binding
- b. Data Encapsulation
- c. Data Storing
- d. Data Abstraction

Answer: b

15) _____ refers to the act of representing only essential features without including the background details.

- a. Data Hiding
- b. Data Encapsulation
- c. Data Abstraction
- d. All of these

Answer: c

16) In CPP program, Can we declare and define a user defined function inside a struct as we do in a class ?

- a. Yes
- b. No
- c. Can't say

Answer: a

17) Which of the followings are false statements about Local class?

1. A local class type name can only be used in the enclosing function
 2. All the methods of Local classes must be defined inside the class only
 3. A Local class can contain static data members.
 4. A Local class may contain static functions.
 5. Non-static variables of the enclosing function are not accessible inside local classes.
 6. Local classes cannot access global types, variables and functions.
- a. Only 1,3
 - b. Only 3, 6

- c. Only 2 , 4 , 6
- d. None of these

Answer: b

18) When a class is defined inside any function or block, it is called _____ .

- a. Nested class
- b. Block class
- c. Local class
- d. It is not possible

Answer: c

19) In CPP, it is mandatory and must to initialize const variables.

- a. True
- b. False

Answer: a

20) We can initialize a value of static variable of a class only when its object is created. No other initialization is permitted.

- a. True
- b. False

Answer: b

21) Logical expressions produce _____ type results.

- a. explicit
- b. garbage
- c. bool
- d. static

Answer: c

22) Only functions of the class can access the data of the class and they(functions) provides the interface between data, objects and the program. This kind isolation of the data from direct access by the program is called _____ .

- a. Data Abstraction
- b. Data Hiding
- c. Data Binding
- d. Data Encapsulation

Answer: b

23) Public data members and member functions of the class are accessible ONLY to the member functions of that class.

- a. True
- b. False

Answer: b

24) Predict the output:

```
int x = 786;  
cout << setfill('*') << setw(6) << x;
```

- a. 786***
- b. **786
- c. ***786
- d. *****

Answer: c

25) Private members of the class are accessible only to the members of the same class.

- a. True
- b. False

Answer: b

26) Static variable declared in a class are also called_____ .

- a. instance variable
- b. named constant
- c. global variable
- d. class variable

Answer: d

27) Static variable must be declared in public section of the class.

- a. True
- b. False

Answer: b

28) Which of the following are true about static member function?

- 1. They can access non-static data members.
- 2. They can call only other static member functions.
- 3. They can access global functions and data.
- 4. They can have this pointer.
- 5. They cannot be declared as const or volatile.

- a. Only 2
- b. Only 2,5
- c. Only 2,3,4,5
- d. Only 2 , 3 , 5
- e. All of these

Answer: d

29) C structure differs from CPP class in regards that by default all the members of the structure are _____ in nature.

- a. private
- b. protected
- c. public
- d. None of these

Answer: c

30) Members of the class can be declared with auto, extern or register storage classes.

- a. True
- b. False

Answer: b

31) Which of the followings is/are not a manipulator/s ?

- 1. flush
 - 2. base
 - 3. ends
 - 4. oct
 - 5. bin
 - 6. skipws
- a. Only 1, 6
 - b. Only 1,4,6
 - c. Only 1,3,6
 - d. Only 2,5

Answer: d

32) Static variable in a class is initialized when ____ .

- a. every object of the class is created.
- b. last object of the class is created.
- c. first object of the class is created.
- d. No need to initialize static variable.

Answer: c

33) In CPP, the size of the character array should be one larger than the number of characters in the string.

- a. True
- b. False

Answer: a

34) If a program uses Inline Function, then the function is expanded inline at _____.

- a. Compile time
- b. Run time
- c. Both a and b
- d. None of these

Answer: b

35) Which of the following is CPP style type-casting?

- a. per = total/(float)m
- b. per = total/float(m)
- c. per = (float)total/m
- d. None of these

Answer: b

36) class TEST

```
{  
private:  
int roll_no;  
public:  
int age;  
char name[20];  
private:  
int grade;  
protected:  
char gender[20];  
private:  
int m1, m2, m3;  
};
```

In general view, is this class definition valid?

- a. Yes
- b. No

Answer: a

37) By default, members of the class are _____ in nature.

- a. protected
- b. private
- c. public
- d. static

Answer: b

38) _____ are used to format the data display in CPP.

- a. Iterators
- b. Punctuators
- c. Manipulators
- d. Allocators

Answer: c

39) Default value of static variable is_____ .

- a. 0
- b. 1
- c. Garbage value
- d. Compiler dependent

Answer: a

40) C++ provides various types of tokens that includes keywords, identifiers, constants, strings and operators.

- a. tokens
- b. expressions
- c. structures
- d. none

Answer: a

41) refer to the names of variables, functions, arrays, classes etc. created by programmer.

- a. Keywords
- b. Identifiers
- c. Constants
- d. Strings

Answer: b

42) are explicitly reserved identifiers and cannot be used as names for the program variables or other user defined program elements.

- a. Keywords
- b. Identifiers
- c. Constants
- d. Strings

Answer: a

43) State whether the following statements are True or False for C++ identifiers.

- i) Only alphabetic characters, digits and underscores are permitted.
- ii) The name can start with a digit.
- iii) Uppercase and lowercase letters are distinct.

- a. i-True, ii-True, iii-False
- b. i-True, ii-False, iii-True
- c. i-True, ii-False, iii-False
- d. i-True, ii-True, iii-True

Answer: b

44) In C++, refer to fixed values that do not change during the execution of a program.

- a. Identifiers
- b. Constants
- c. Strings
- d. Operators

Answer: b

UNIT-III

45) C++ provides an additional use of, for declaration of generic pointers.

- a. int
- b. float
- c. void
- d. double

Answer: c

46)The data type was used to specify the return type of a function when it is not returning any value.

- a. int
- b. float
- c. void
- d. double

Answer: c

47)A can be assigned a pointer value of any basic data type, but it may not be referenced.

- a. int pointer
- b. void pointer
- c. generic pointer
- d. non-void pointer

Answer: c

48)Which of the following is NOT the user defined data type in C++.

- a. Structure
- b. Pointer
- c. Union
- d. Class

Answer: b

49) Which of the following is/are the derived data types in C++.

i) array ii) function iii) pointer iv) class

- a. i, ii and iii only
- b. ii, iii and iv only
- c. i, iii and iv only
- d. All i, ii, iii and iv

Answer: a

50)In the case of in C++, we can not modify the address that the pointer is initialized.

- a. constant pointer
- b. pointer to a constant
- c. pointer constant
- d. constant to a pointer

Answer: a

51) In the case of in C++, contents of what it points to cannot be changed.

- a. constant pointer
- b. pointer to a constant
- c. pointer constant
- d. constant to a pointer

Answer: b

52) Which of the following is the correct way of declaring constant pointer in C++.

- a. `char const * pointer1="OK";`
- b. `char * const pointer1="OK";`
- c. `const * char pointer1="OK";`
- d. `const char * pointer1="OK"`

Answer: b

53) Which of the following is the correct way of declaring pointer to a constant in C++.

- a. `int * const pointer1=&p;`
- b. `const * int pointer1=&p;`
- c. `int const * pointer1=&p;`
- d. `int pointer1 * const=&p;`

Answer: c

54) We can create in C++ using the qualifier constant and defining a set of integer constant using enum keywords.

- a. basic constant
- b. number constant
- c. symbolic constant
- d. named constant

Answer: c

55) The are just like variables except that their values cannot be changed.

- a. basic constant
- b. number constant
- c. symbolic constant
- d. named constant

Answer: d

56) are widely used in C++ for memory management and to achieve polymorphism.

- a. Pointers
- b. Array
- c. Function
- d. Class

Answer: a

57) C++ permits initialization of the variables at run time which is referred to as initialization.

- a. static
- b. dynamic
- c. variable
- d. runtime

Answer: b

58)..... used in C++ provides an alias (alternative name) for a previously defined variables.

- a. alias
- b. alternative
- c. defined
- d. reference

Answer: d

59)A reference variable must be initialized at the time of

- a. initialization
- b. declaration
- c. running
- d. definition

Answer: b

60)Which of the following is FALSE about references in C++

- a. References cannot be NULL
- b. A reference must be initialized when declared
- c. Once a reference is created, it cannot be later made to reference another object; it cannot be reset.
- d. References cannot refer to constant value

Answer: d

61)Which of the following functions must use reference.

- a. Assignment operator function
- b. Copy Constructor
- c. Destructor
- d. Parameterized constructor

Answer: b

62)How many sequence of statements are present in c++?

- a. 4
- b. 3
- c. 5
- d. 6

Answer: c

63)The if..else statement can be replaced by which operator?

- a. Bitwise operator
- b. Conditional operator
- c. Multiplicative operator
- d. none of the mentioned

Answer: b

64)The switch statement is also called as?

- a. choosing structure
- b. selective structure
- c. certain structure
- d. none of the mentioned

Answer: b

65) The destination statement for the goto label is identified by what label?

- a. \$
- b. @
- c. *
- d. :

Answer: d

66) How many types of loops are there?

- a. 4
- b. 2
- c. 3
- d. 1

Answer: a

67) In C++, the declaration of functions and variables are collectively called

- a. class members
- b. function members
- c. object members
- d. member variables

Answer: a

68) The keywords private and public used in C++ are known as

- a. keyword labels
- b. visibility labels
- c. declaration labels
- d. display labels

Answer: b

69) The variables declared inside the class are known as data members and functions are known as

- a. data functions
- b. inline functions
- c. member functions
- d. member variables

Answer: c

70) Only the can have access to the private members and private functions.

- a. data functions
- b. inline functions

- c. member functions
- d. member variables

Answer: c

71)The binding of data and functions together into a single class-type variable is referred to as

- a. encapsulation
- b. object
- c. class
- d. datahiding

Answer: a

72)Which of the following statements about member functions are True or False.

- i) A member function can call another member function directly with using the dot operator.
- ii) Member function can access the private data of the class.

- a. i-True, ii-True
- b. i-False, ii-True
- c. i-True, ii-False
- d. i-True, ii-True

Answer: b

73)When the function is defined inside a class, it is treated as

- a. data function
- b. inline function
- c. member function
- d. member variable

Answer: b

74)A member function can be called by using its name inside another function of the same class, which is known as of member function.

- a. sub function
- b. sub member
- c. nesting
- d. sibling

Answer: c

75) A member function can only be called by another function that is member of it's class.

- a. friend
- b. static
- c. public
- d. private

Answer: d

76) member variable is initialized to zero when the first object of its class is created where no other initialization is permitted.

- a. friend
- b. static
- c. public
- d. private

Answer: b

77) State whether the following statements are True or False about the characteristics of static data members.

i) Only one copy of static member is created for the entire class and is shared by all the objects of that class, no matter how many objects are created.

ii) Static member variable is visible only within the class, but its lifetime is the entire program.

- a. i-True, ii-True
- b. i-False, ii-True
- c. i-True, ii-False
- d. i-True, ii-True

Answer: a

78) Static variables are associated with the class itself rather than with any class object, they are also known as

- a. class variables
- b. object variables
- c. function variables
- d. internal variables

Answer: a

79) Static variables are like as they are declared in a class declaration and defined in the source file.

- a. inline member function
- b. non inline member function
- c. static member function
- d. dynamic member function

Answer: b

80) A can have access to only other static members declared in the same class.

- a. constant member function
- b. private member function
- c. static member function
- d. friend function

Answer: c

81) A static member function can be called using the instead of its objects.

- a. variable name
- b. function name
- c. Class name
- d. object name

Answer: c

82) While using an object as a function argument, a copy of the entire object is passed to the function in method.

- a. pass-by-value
- b. pass-by-reference
- c. pass-by-variable
- d. pass-by-function

Answer: a

83) A, although not a member function, has full access rights to the private members of the class.

- a. constant member function
- b. private member function
- c. static member function
- d. friend function

Answer: d

84) can be invoked like a normal function without the help of any object.

- a. constant member function
- b. private member function
- c. static member function
- d. friend function

Answer: d

85) A can only be called by another function that is member of its class.

- a. constant member function
- b. private member function
- c. static member function
- d. friend function

Answer: b

86) If a member function does not alter any data in the class, that may be declared as

- a. constant member function
- b. private member function
- c. static member function
- d. friend function

Answer: a

87) Which of the followings is/are automatically added to every class, if we do not write our own.

- a. Copy Constructor
- b. Assignment Operator
- c. A constructor without any parameter
- d. All of the above

Answer: d

88)When a copy constructor may be called?

- a. When an object of the class is returned by value.
- b. When an object of the class is passed (to a function) by value as an argument.
- c. When an object is constructed based on another object of the same class
- d. When compiler generates a temporary object.
- e. All of the above

Answer: e

89)We must use initializer list in a constructor when

- a. There is a reference variable in class
- b. There is a constant variable in class
- c. There is an object of another class. And the other class doesn't have default constructor.
- d. All of the above

Answer: d

90)Which of the following is true about constructors.

- 1) They cannot be virtual.
 - 2) They cannot be private.
 - 3) They are automatically called by new operator.
- a. All 1, 2, and 3
 - b. Only 1 and 3
 - c. Only 1 and 2
 - d. Only 2 and 3

Answer: b

91)Constructors have _____ return type.

- a. void
- b. char
- c. int
- d. no

Answer: d

92)Implicit return type of a class constructor is:

- a. not of class type itself
- b. class type itself
- c. a destructor of class type
- d. a destructor not of class type

Answer: b

93)What is the right way to declare a copy constructor of a class if the name of the class is MyClass?

- a. MyClass (constant MyClass *arg)
- b. MyClass (constant MyClass &arg)
- c. MyClass (MyClass arg)
- d. MyClass (MyClass *arg)

Answer: b

94) Which of the following is FALSE about references in C++

- a. References cannot be NULL
- b. A reference must be initialized when declared
- c. Once a reference is created, it cannot be later made to reference another object; it cannot be reset.
- d. References cannot refer to constant value

Answer: d

95) Which of the following functions must use reference.

- a. Assignment operator function
- b. Copy Constructor
- c. Destructor
- d. Parameterized constructor

Answer: b

96) A member function can always access the data in _____, (in C++).

- a. the class of which it is member
- b. the object of which it is a member
- c. the public part of its class
- d. the private part of its class

Answer: a

97) Which of the following is not correct for virtual function in C++ ?

- a. Must be declared in public section of class.
- b. Virtual function can be static.
- c. Virtual function should be accessed using pointers.
- d. Virtual function is defined in base class.

Answer: b

98) Which of the following is not correct (in C++) ?

Class templates and function templates are instantiated in the same way

Class templates differ from function templates in the way they are initiated

Class template is initiated by defining an object using the template argument

Class templates are generally used for storage classes

- a. (1)
- b. (2), (4)
- c. (2), (3), (4)
- d. (4)

Answer: c

99) Which of the following cannot be passed to a function in C++ ?

- a. Constant
- b. Structure

- c. Array
- d. Header file

Answer: d

100)What is the difference between struct and class in C++?

- a. All members of a structure are public and structures don't have constructors and destructors
- b. Members of a class are private by default and members of struct are public by default. When deriving a struct from a class/struct, default access-specifier for a base class/struct is public and when deriving a class, default access specifier is private.
- c.All members of a structure are public and structures don't have virtual functions
- d. All of the above

Answer: b

101)Which of the following is a correct statement?

- a. Composition is a strong type of association between two classes with full ownership.
- b. Composition is a strong type of association between two classes with partial ownership.
- c. Composition is a weak type of association between two classes with partial ownership.
- d. Composition is a weak type of association between two classes with strong ownership.

Answer: a

102)Which of the following is not a correct statement?

- a. Every class containing abstract method must be declared abstract.
- b. Abstract class can directly be initiated with 'new' operator.
- c. Abstract class can be initiated.
- d. Abstract class does not contain any definition of implementation.

Answer: b

103)When a method in a subclass has the same name and type signatures as a method in the superclass, then the method in the subclass _____ the method in the superclass.

- a. Overloads
- b. Friendships
- c. Inherits
- d. Overrides

Answer: d

104)It is possible to define a class within a class termed as nested class. There are _____ types of nested classes.

- a. 2
- b. 3
- c. 4
- d. 5

Answer: a

105)When one object reference variable is assigned to another object reference variable then

- a. a copy of the object is created.
- b.a copy of the reference is created.

- c. a copy of the reference is not created.
 - d. it is illegal to assign one object reference variable to another object reference variable.
- Answer: b

106) Which of the following, in C++, is inherited in a derived class from base class ?

- a. constructor
- b. destructor
- c. data members
- d. virtual methods

Answer: c

107) Which of the following is not a member of class?

- a. Static function
- b. Friend function
- c. Const function
- d. Virtual function

Answer: b

108) Can destructors be private in C++?

- a. Yes
- b. No

Answer: a

109) Like constructors, can there be more than one destructors in a class?

- a. Yes

Answer: b

110) Can destructors be virtual in C++?

- a. Yes
- b. No

Answer: a

111) How can we restrict dynamic allocation of objects of a class using new?

- a. By overloading new operator
- b. By making an empty private new operator.
- c. By making an empty private new and new[] operators
- d. By overloading new operator and new[] operators

Answer: c

112) Which of the following operators cannot be overloaded

- a. . (Member Access or Dot operator)
- b. ?: (Ternary or Conditional Operator)
- c. :: (Scope Resolution Operator)
- d. .* (Pointer-to-member Operator)
- e. All of the above

Answer: e

113) Which of the following operators are overloaded by default by the compiler in every user defined classes even if user has not written?

1. Comparison Operator (==)
2. Assignment Operator (=)
- a. Both 1 and 2
- b. Only 1
- c. Only 2
- d. None of the two

Answer: c

114) Which of the following operators should be preferred to overload as a global function rather than a member method?

- a. Postfix ++
- b. Comparison Operator
- c. Insertion Operator <<
- d. Prefix++

Answer: c

115) How does C++ compiler differ between overloaded postfix and prefix operators?

- a. C++ doesn't allow both operators to be overloaded in a class
- b. A postfix ++ has a dummy parameter
- c. A prefix ++ has a dummy parameter
- d. By making prefix ++ as a global function and postfix as a member function.

Answer: b

116) Which of the following operator functions cannot be global, i.e., must be a member function.

- a. new
- b. delete
- c. Conversion Operator
- d. All of the above

Answer: c

117) Which of the following operator(s) cannot be overloaded?

- a. . (Member Access or Dot operator)
- b. ?: (Ternary or Conditional Operator)
- c. :: (Scope Resolution Operator)
- d. All of the above

Answer: dd

118) Which of the following in Object Oriented Programming is supported by Function overloading and default arguments features of C++.

- a. Inheritance
- b. Polymorphism

- c. Encapsulation
- d. None of the above

Answer: b

119) If a function is friend of a class, which one of the following is wrong?

- a. A function can only be declared a friend by a class itself.
- b. Friend functions are not members of a class, they are associated with it.
- c. Friend functions are members of a class.
- d. It can have access to all members of the class, even private ones.

Answer: c

120) Which one of the following is correct, when a class grants friend status to another class?

- a. The member functions of the class generating friendship can access the members of the friend class.
- b. All member functions of the class granted friendship have unrestricted access to the members of the class granting the friendship.
- c. Class friendship is reciprocal to each other.
- d. There is no such concept.

Answer: b

121) Which of the following is true?

- a. Static methods cannot be overloaded.
- b. Static data members can only be accessed by static methods.
- c. Non-static data members can be accessed by static methods.
- d. Static methods can only access static members (data and methods)

Answer: d

UNIT - IV

122) When the inheritance is private, the private methods in base class are _____ in the derived class (in C++).

- a. inaccessible
- b. accessible
- c. protected
- d. public

Answer: c

123) In C++, const qualifier can be applied to

- 1) Member functions of a class
 - 2) Function arguments
 - 3) To a class data member which is declared as static
 - 4) Reference variables
- a. Only 1, 2 and 3
 - b. Only 1, 2 and 4
 - c. All
 - d. Only 1, 3 and 4

Answer: c

124)How to create a dynamic array of pointers (to integers) of size 10 using new in C++?

Hint: We can create a non-dynamic array using `int *arr[10]`

- a. `int *arr = new int *[10];`
- b. `int **arr = new int *[10];`
- c. `int *arr = new int [10];`
- d. Not Possible

Answer: b

125)Which of the following is true about new when compared with malloc.

- 1) new is an operator, malloc is a function
 - 2) new calls constructor, malloc doesn't
 - 3) new returns appropriate pointer, malloc returns void * and pointer needs to typecast to appropriate type.
- a. 1 and 3
 - b. 2 and 3
 - c. 1 and 2
 - d. All 1, 2 and 3

Answer: d

126)What happens when delete is used for a NULL pointer?

- a. Compiler Error
- b. Run-time Crash
- c. No Effect
- d. None of these

Answer: c

127)Which of the following is true about virtual functions in C++.

- a. Virtual functions are functions that can be overridden in derived class with the same signature.
- b. Virtual functions enable run-time polymorphism in a inheritance hierarchy.
- c. If a function is 'virtual' in the base class, the most-derived class's implementation of the function is called according to the actual type of the object referred to, regardless of the declared type of the pointer or reference.

In non-virtual functions, the functions are called according to the type of reference or pointer.

- d. All of the above

Answer: d

128)Which of the following is true about pure virtual functions?

- 1) Their implementation is not provided in a class where they are declared.
 - 2) If a class has a pure virtual function, then the class becomes abstract class and an instance of this class cannot be created.
- a. Both 1 and 2
 - b. Only 1
 - c. Only 2
 - d. Neither 1 nor 2

Answer: c

UNIT - V

129) Which of the following is true about templates.

- 1) Template is a feature of C++ that allows us to write one code for different data types.
- 2) We can write one function that can be used for all data types including user defined types. Like sort(), max(), min(), ..etc.
- 3) We can write one class or struct that can be used for all data types including user defined types. Like Linked List, Stack, Queue ..etc.
- 4) Template is an example of compile time polymorphism.

- a. 1 and 2
- b. 1, 2 and 3
- c. 1, 2 and 4
- d. 1, 2, 3 and 4

Answer: d

130) Which of the following provides the best description of an entity type?

- a. A specific concrete object with a defined set of processes (e.g. Jatin with diabetes)
- b. A value given to a particular attribute (e.g. height – 230 cm)
- c. A thing that we wish to collect data about zero or more, possibly real world examples of it may exist
- d. A template for a group of things with the same set of characteristics that may exist in the real world

Answer: d

131) Which of the following is incorrect in C++ ?

- (1) When we write overloaded function we must code the function for each usage.
 - (2) When we write function template we code the function only once.
 - (3) It is difficult to debug macros
 - (4) Templates are more efficient than macros
- a. (1) and (2)
 - b. (1), (2) and (3)
 - c. (3) and (4)
 - d. All are correct.

Answer: d

132) What is the advantage of exception handling?

- 1) Remove error-handling code from the software's main line of code.
 - 2) A method writer can choose to handle certain exceptions and delegate others to the caller.
 - 3) An exception that occurs in a function can be handled anywhere in the function call stack.
- a. Only 1
 - b. 1, 2 and 3

- c. 1 and 3
- d. 1 and 2

Answer: b

133)What should be put in a *try* block?

- 1. Statements that might cause exceptions
 - 2. Statements that should be skipped in case of an exception
- a. Only 1
 - b. Only 2
 - c. Both 1 and 2

Answer: c

134)Which of the following is true about exception handling in C++?

- 1) There is a standard exception class like Exception class in Java.
- 2) All exceptions are unchecked in C++, i.e., compiler doesn't check if the exceptions are caught or not.
- 3) In C++, a function can specify the list of exceptions that it can throw using comma separated list like following.

void fun(int a, char b) throw (Exception1, Exception2, ..)

- a. 1 and 3
- b. 1, 2 and 3
- c. 1 and 2
- d. 2 and 3

Answer: b

135)By default, all the files are opened in _____mode .

- a. Binary
- b. Text
- c. Can't say

Answer: b

136)It is not possible to combine two or more file opening mode in open () method.

- a. True
- b. False

Answer: a

137)Which of the following is not a file opening mode ____ .

- a. ios::ate
- b. ios::nocreate
- c. ios::noreplace
- d. ios::truncate

Answer: d

138)Due to ios::trunc mode, the file is truncated to zero length.

- a. True
- b. False

Answer: b

139) If we have object from ofstream class, then default mode of opening the file is ____ .

- a. ios::in
- b. ios::out
- c. ios::in|ios::trunc
- d. ios::out|ios::trunc

Answer: d

140) _____ is return type of is_open() function.

- a. int
- b. bool
- c. float
- d. char *

Answer: b

141) If we have object from fstream class, then what is the default mode of opening the file?

- a. ios::in|ios::out
- b. ios::in|ios::out|ios::trunc
- c. ios::in|ios::trunc
- d. Default mode depends on compiler

Answer: d

142) To create an output stream, we must declare the stream to be of class ____ .

- a. ofstream
- b. ifstream
- c. iostream
- d. None of these

Answer: a

143) Streams that will be performing both input and output operations must be declared as class ____ .

- a. iostream
- b. fstream
- c. stdstream
- d. Stdiostream

Answer: b

144) To perform File I/O operations, we must use _____ header file.

- a. < ifstream>
- b. < ofstream>
- c. < fstream>
- d. Any of these

Answer: c

145) Which of the following is not used to seek a file pointer?

- a. `ios::cur`
- b. `ios::set`
- c. `ios::end`
- d. `ios::beg`

Answer: b

Department of Computer Science(S.F)
I-B.Sc.Computer Science – Question Bank – K2 level
18UCS204-OBJECT ORIENTED PROGRAMMING USING C++

Unit-I

- 1.How to mark the end of C++ statement?
Answer: ;
2. What is the other name of Dereference operator?
Answer : Offset operator
3. Which class has only one unique value for all the objects of the class?
Answer: Static
4. Which data type is used to represent the absence of parameters?
Answer: void
5. What does '\a' escape code represent?
Answer: alert
6. Which type is best suited to represent the logical values?
Answer: boolean
7. Which variable does equate in size with enum variable?
Answer: int variable
8. Where does the execution of the program start?
Answer: main
9. Which is more effective while calling the functions?
Answer: call by reference
10. Define class.
Answer: Collection of similar objects.
11. What is encapsulation?
Answer: Wrapping of both data and functions together.
12. What is object?
Answer: Runtime entities.

13. Define Polymorphism.

Answer: having many forms.

Unit-II

14. Which operator is used to define a member of a class from outside the class definition?

Answer: ::

15. Which is boolean operator for logical AND ?

Answer: &&

16. What is getline() in C++ ?

Answer: getline() extract the delimiter newline character from the input stream

17. Which type of variables can be referred from anywhere in the C++ code?

Answer: Global variables

18. What is the value of sizeof(char)?

Answer: 1

19. Which arithmetic operation can be done in pointer?

Answer: addition

20. Which operator is used for comparing two variables?

Answer: ==

21. How the name for constants can be defined?

Answer: #define

22. What is the use of \r ?

Answer: carriage return

23. Which is used to tell the computer that where a pointer is pointing to?

Answer: dereference operator

24. Which is used to return the number of characters in the string?

Answer: both size and length

25. What is inline function?

Answer: An inline function is a combination of macro & function. At the time of declaration or definition, function name is preceded by word inline.

26. What are the characteristics of friend functions?

Answer: A friend function is not in the scope of the class in which it has been declared as friend.

27. What are the advantages of using friend classes?

Answer: A friend class and all its member functions have access to all the private members defined within other class.

28. Which is not the member of a class?

Answer: friend

Unit-III

29. Which members of class have access to its members?

Answer: Private

30. How to define a destructor?

Answer: `~a(){}`

31. Can we overload constructors in C++?

Answer: Yes

32. Which cannot be inherited from the base class?

Answer: Both constructor and friend function

33. When the Inline functions are invoked ?

Answer: Compile time

34. What is a call by value?

Answer: Passing a value to a function.

35. How many arguments does Default constructor has ?

Answer: 0

36. What is size of generic pointer in C++ (in 32-bit platform) ?

Answer: 4

37. Which of the following is used to terminate the function declaration?

Answer: ;

38. What are mandatory parts in the function declaration?

Answer: return type, function name

39. What is the scope of the variable declared in the user defined function?

Answer: only inside the {} block

40. Which permits function overloading on c++?

Answer: type & number of arguments

41. What should be passed in parameters when function does not require any parameters?
Answer: blank space
42. What will happen while using pass by reference
Answer: The location of variable in memory is passed to the function so that it can use the same memory area for its processing
43. What is operator overloading?
Answer: C++ provides ability to overload most operators so that they perform special operations relative to classes.
44. What is overloading unary operator?
Answer: Unary operators are those which operate on a single variable.
45. What is function overloading ?
Answer: A feature in C++ that enables several functions of the same name can be defined with different types of parameters or different number of parameters.

Unit-IV

46. Which of the following functions below can be used Allocate space for array in memory?
Answer: calloc
47. What is the meaning of base class in C++?
Answer: Another class got inherit from this class
48. What is inheritance?
Answer: Inheritance allows one class to reuse the state and behavior of another class.
49. What is abstract class?
Answer: whose objects cannot be created.
50. What is polymorphism?
Answer: Ability to take more than one form
51. Which type of class allows only one object of it to be created?
Answer: singleton class
52. Which class is used to design the base class?
Answer: abstract class
53. Which is used to create a pure virtual function?
Answer: =0

54. Which is also called as abstract class?

Answer: pure virtual function

55. What is virtual function?

Answer: A virtual function is a member function that is declared within a base class and redefined by a derived class..

56. What is a Pure Virtual Function?

Answer: It is declared by assigning the '0' in the declaration part.

57. What do you call the languages that support classes but not polymorphism?

Answer: object –based language

Unit-V

58. Where does the program control transfers when the exception is arisen?

Answer: handlers

59. Which keyword is used to check exception in the block of code?

Answer: try

60. What will happen when the exception is not caught in the program?

Answer: error

61. What will happen when the handler is not found for an exception?

Answer: no action will perform

62. What is use of eof() ?

Answer: Returns true if a file open for reading has reached the end.

63. Which is used for positioning relative to the beginning of a stream ?

Answer: ios::beg

64. Which functions allow to change the location of the get and put positions ?

Answer: seekg() and seekp()

65. Which stream class is to only write on files ?

Answer: ofstream

66. How to find the position at end of fileObject ?

Answer: fileObject.seekg(0, ios::end);

67. What is a template?

Answer: A template is a formula for creating a generic class

68. How to declare a template?

Answer: template <>

69. How many types of templates are there in c++?

Answer: 2

70. How is static data member similar to a global variable?

Answer: The life of a static data member exists between the functions.

Department of Computer Science(S.F)

Question Bank – K3 Level

Object Oriented Programming using C++ - 18UCS204

Unit- I

- 1.Examine the concept of Object oriented Programming.
- 2.Categorize the structure of Software evolution.
- 3.List out the eminent features of Procedure oriented programming.
- 4.Analyze the paradigm of Object oriented programming .
- 5.List out the benefits of OOPs.
- 6.Mention the key features of object oriented languages.
- 7.List out the applications of OOPs.
- 8.Distinguish between class and object.
- 9.Discuss Inheritance and Polymorphism.
- 10.Compare encapsulation and data binding.

Unit-II

- 1.List out the application of C++.
- 2.Classify the structure of C++ program.
- 3.Examine the features of tokens and expressions.
- 4.Mention some of the user defined data types.
- 5.List out some of the derived data types.
- 6.Analyse Symbolic constants with its structure.
- 7.Conclude declaring data types with an example.
- 8.Discover reference variables with an example.
- 9.Simplify Manipulators and its functions.
- 10.Examine various functions in C++.
- 11.Compare Call by reference and Call by value.
- 12.Mention the use of Inline functions.
- 13.Distinguish between Default arguments and Constant arguments.

14. Write the syntax for declaring Constant arguments with an example.
15. Analyse member functions in C++.
16. Conclude defining nesting of member functions.
17. Compare and contrast Private member function and Static member function.
18. Write a program to add two numbers using inline function
19. Write a program using manipulators

Unit-III

1. Examine the features of Array of objects with an example program.
2. Conclude Friend function with an example.
3. Analyse the concept of Returning of objects.
4. Analyse the concept of constant member function.
5. Examine the concept of pointer to members.
6. Conclude Copy constructor with an example.
7. Examine the features of Constructor with default arguments.
8. Inspect Parameterized constructor with an example.
9. Examine destructor and its advantages .
10. List out the rules for operator overloading.
11. Mention the special features of function overloading.
12. Write a program to increment and decrement of complex numbers using Operator overloading
13. Write a program to add two complex numbers using returning by objects

Unit-IV

1. Examine the type of base classes.
2. Examine the types of derivation.
3. Conclude Single inheritance with examples.
4. Conclude Multilevel inheritance with an example.
5. Distinguish between hierarchical inheritance and hybrid inheritance.
6. Analyse Pure virtual functions.
7. Compare and contrast between pointer to objects and pointer to derived objects.

8. Inspect virtual functions with a sample program.
9. Write a program to create sports details using multiple inheritance
10. Write a program to find the circumference of a circle using pointer to objects

Unit-V

1. List out the types of File operations.
2. Examine the structure of Streams and Stream classes.
3. Analyse Opening and closing a file with a neat sketch.
4. List out the types of File pointers .
5. Mention some of the current header files in C++.
6. Distinguish between Class templates and Function templates.
7. Classify Formatted console I/O/operations and Unformatted console I/O/operations.
8. Mention some of the ios flags.
9. Write a program to create a Binary file and perform read and write operations.
10. Write a program to create Student's class and perform read and write operations.

Department of Computer Science(S.F)

Question Bank – K4 & K5 Level

Object Oriented Programming using C++ - 18UCS204

Unit-I

- 1.Explain the basic concepts of OOPs.
- 2.Compare OOPs and OOT.
- 3.List out the advantages and disadvantages of OOPs.
- 4.Explain OOPs and its applications.
- 5.Determine the key concepts of Procedure oriented programming.

Unit-II

- 1.Mention the basic datatypes with an example.
- 2.List out the operators used in C++.
- 3.Explain Expressions and Implicit conversions with an example.
- 4.Explain Control Structures with a neat sketch.
- 5.Explain Classes and objects.
- 6.Write a program to generate Fibonacci series for 'n' terms.
- 7.Write a program to create Student's Marklist using Classes and Objects.

Unit-III

- 1.Explain the concept of Array of object with a sample program.
- 2.Explain Constructor and its types.
- 3.Explain Operator Overloading.
- 4.Examine the key features of Type conversions.
- 5.Elucidate function overloading with arguments.

6. Write a program to add two complex numbers using constructor.
7. Write a program to add time in hours and minutes using operator overloading.
8. Write a program to find the area of a square, circle, triangle using function overloading.

Unit-IV

1. Explain Inheritance and its types.
2. Explain types of derivation with its syntax.
3. Examine the concept of Polymorphism.
4. Explain Virtual functions with a sample program.
5. Conclude Pointer to derived classes.
6. Write a program to create product details using single inheritance.
7. Write a program to find the area of a rectangle using Virtual function.
8. Write a program to find the perimeter of a square using pointer to objects and pointer to derived objects.

Unit-V

1. List out the types of File operations.
2. Explain Classes for file stream operations.
3. Classify the types of File pointers.
4. Explain Templates with an example.
5. Distinguish between Class template and Function template.
6. Write a program to create stock details using single file.
7. Write a program to display department details using multiple files.
8. Write a program to add two numbers using class template and function template.
