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CS304-OOP

MIDTERM MCQS

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SR NO	MCQS QUESTION	ANSWER
1	In expression c1*c2+c3-c4 which of the following will be executed in first order	C1*c2
2	Inheritance is a way to	Add features to existing classes without rewriting them
3	--------------- represent "IS A "relationship	Inheritance
4	Constructor without any parameter is called:	Default constructor
5	Which of the following stores the address of a variable?	Pointer
6	A Post-fix unary operator is implemented in C ++ using Member function with	1 dummy int argument
7	minimum classes required in a program for implementing multiple inheritance	3
8	Which of the following statement(s) describe constant member functions?	All of the given option
9	composition is a strong relation relationship because	Composed object cant exist independency
10	How many interactions are there in the following scenario Imran has the car. he drive the car and car has four wheels and doors	3
11	if we extend our model ,and the rest of the model is not affected then it is called------	Flexibility
12	choose correct declaration of overload*=1 operator for class complex as Member function	Complex and operator*=(const complex & c)
13	Consider the following class A{int a,b,c; public: A():B(10),C(0)a(7) };	A,b,c
14	Class is a blue print of	Objects

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15	Suppose we have a class student which of the following statement is correctly declaring the pointer to the object of student class?	Student*object
16	In c++ composition is relationship between -------and------objects	Whole, part
17	Which of the following Depicts the proper definition of class?	a class is description of a kind of object
18	in class attributes are represented by ----and------ respectively	data member, Member function
19	which of the following represents the two Association	Employee works for the company
20	Entities in OO model are represented by	Rectangle
21	Which of the following features of OOP is used to derive a class from another?	Inheritance
22	In C ++ which of the following is defined as a stream insertion operator?	<<
23	choose the correct declaration of overloaded equality (==)operator for class string as a Member function	Bool operator==(const string and s)
24	---- is the relationship between the part object and the whole object	Composition
25	object hides its information from others this concept is known as	information hiding
26	the concept of derived classes is involved in	Inheritance
27	abstraction provides information according to	user perspective
28	which of the following is not an object Association	Inheritance
29	which of the following classes are used by amphibious vehicle to inherit characteristics	both land and water vehicle
29	object data includes	both states and attributes of an object

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30	choose correct declaration of overloaded inequality operator for class string as non member friend function	friend pool operator !=(const string &s1,const string &2)
31	How many objects of a given class may be constructed in an application?	as many as the application ask for
32	how many objects of a given class may be constructed in an application	as many as the application ask for
33	Which of the following statements describe constant member functions?	all of the given option
34	student *ptr=new student(" Ali"); is an example of	static memory allocation
35	in------- base class can be replaced by the derived class	extension
36	Which of the following is a correct way of declaring constant variable ROLLNO?	cosnst int Roll no;
37	which of the following operator doesn't take argument hit overloaded	none of the given choices
38	which of the following is part of the Class diagram	all of the given option
39	a child inherits characteristic from its	parent
40	which of the following issues can be caused by the use of friend function	programming Bugs
41	which of the following is not true about constant number function	all of the given option
42	Which one is not the main features of object oriented programming?	exception handling
43		
44	in object oriented programming, objects communicate with each other through	messages
45	static data member is declared	inside the class
46	the concept of derived classes is involved in	inheritance
47	Which of the following can we attribute of an object "Ali"?	address

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48	Which of the following keyword tell the compiler to substitute the code within the function definition for every instance of a function call?	inline
49	inheritance is the relationship between	classes
50	how many objects are involved in the binary Association	2
51	all objects of same class has -------- attributes	same
52	which of the following concept is more close to encapsulation	information hiding
53	member initialization list is used to	initialize data member
54	aggregation between objects show that	objects have week relationship
55	there is /are ways to create user defined types for objects in C ++	two
56	composition is a strong relationship because:	composed object can not exist independently
57	in polymorphism messenger can be interpreted in different ways depending upon the----- class	receiver
58	which of the following is most suitable advantage of information hiding	simplifies the model
59	the process of extracting common characteristics from two or More classes and combining them into a generalized superclass is called	Generalization
60	------- operator is used to create objects at run time	new
61	choose the correct option to declare an overloaded Stream insertion operator for userdefind class "string" as a non-member friend function	friend out stream and operator<<(ostream and os,const string & s)
62	static data member is declared	inside the class
63	an instance of user defined type is called	object

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64	which of the following is true about constructor	all of the given option
65	Which of the following correct way of declaring constant variable ROLLNO?	const int ROLLNO;
66	inheritance is shown by	filled arrow
67	which of the following operators operate on one operand	unary operator
68	which of the following will happen when a constant function tried to change the value of data members of the class	compile time error will occur
69	in object oriented programming, objects communicate with each other through---	messages
70	How the information hidden within an object can be accessed?	through its interface
71	object orientation approach can be achieved using object and their-------	interactions
72	constructors have ----- return type	no
73	which of the following is an example of unary operator	increment operator(++)
74	memory is allocated to non-static members only when	object is created
75	in class B inherit from class A which of the following is child class	class B
76	the------ tells the compiler what task the function will be performing	function definition
77	Consider the statement" room has chair" which of the following type of Association exists between whom and chair?	aggregation
78	how many objects are involved in the N-ary Association	more than 3
79	deconstruct is a function which has the same name as that of class but starts with a----- sign	~
80	which of the following is a tangible entity	car

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81	member initializer list is used to	initialize data members
82	we can get the address of variable stored in pointer using-----	& symbol
83	two sentence object oriented programming book in bookshelf is an example of	aggregation
84	which of the following best defines the obstruction	hide the implementation and show current perspective
85	which of the following define default constructor 5 class student	student(){//..}
86	object data includes	both state and attributes of an object
87	minimum classes required in a program for implementing multiple inheritance	3
88	information hiding can be achieved through-------	encapsulation, abstraction
89	compiler generated defaulter structure is called----- hand user written default constructor is called----	implicit, explicit
90	which of the following is true about constructor	all of the given option
91	In which of the following different forms office single entity exist?	polymorphism
92	data members of a class student can be:	all of the given option
93	the----- turn off the compiler what does the function will be performing	function definition
94	Suppose a class does not have any constructor what will happen when an object of this class is created?	compiler will call implicit default constructor
95	how can we differentiate between constructor and destructor	destructor are preceded with a Tilda(~) symbol, and constructor are not preceded with any symbol

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96	---- is used for hiding the details of an object from the other parts of a program	encapsulation
97	Class diagram include	class name, attributes, operation
98	through interface was access objects--------	behavior
99	composition is a strong relationship because	compose object cannot exist independently
100	copy constructor is called when:	an object is created in term of Preexisting object
101	choose the correct option to declare an overloaded stream insertion operator for a user defined class string as a non-Member friend function	friend ostream & operator(ostream &os.const string &s)
102	a post-fix unary operator implemented in C plus plus using non Member function with---- arguments	two
103	in class attributes and behaviors are represented by---- and--- respectively	data members, member functions
104	which of the following best describes the relationship between book and book chapter classes	composition
105	which of the following is true about destructor	all of the given option
106	in composition----- are called from composing objects to composed subjects	destructors
107	which of the following can be used an alternative to Static members	Global variables
108	which of the following statement is true about static function of a class	it is used to access static data members
109	which of the following operator does not take any arguments if overloaded	none of the given choices
110	what is the output of the following code int main(){int cost x=10;cout<<++x;return0;}	error

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111	abstraction includes-------	relevant information
112	Which of the following can be the behavior of an object "Usman"?	eat
113	a class defined within another class is	nested class
114	when an object is initialized, is automatically called by the compiler	constructor
115	the compiler treats the Member function of a class as	inline function
116	an object has attributes operation ,and-------	unique identity
117	Which of the following is not an access specifier in C ++?	hidden
118	which of the following parts of an object exhibits its state	data
119	---- is the relationship between the part object and the whole object	composition
120	how can we identify classes from a given problem statement	by extracting nouns from problem statement
121	what "friend" should be placed in	function declaration
122	generalization is--------- approach	bottom-up
123	static data members can be accessed through--------	dot operator and scope resolution operator
124	composition age----- and aggregation is------- relationship	strong, weak
125	suppose there is an object of type person, which of the following can be considered as one of its attributes	name
126	Which of the following depicts the proper definition of class?	a class is a description of a kind of object
127	a child inherits characteristics from its-------	parent
128	the car is composed of wheels what is the relationship between car and wheels?	composition

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129	------ is creating objects of one class inside another class	composition
130	the other name of specialization is-------	restriction
131	suppose a is an int type static data member class test then which of the following is correct way of initialization the static variable outside the class test	int test::a=0
132	Which of the following stores the address of variable?	Pointer
133		
134		
135	static data member is declared	inside the class
136	polymorphism makes the system	all of the given option
137	which of the following statement best describes the constructor	constructor is used to initialize the data members of a class
138	data member(s) of a class student can be	all of the given option
139	which of the following is a strong relationship	composition
140	all objects of same class has------- attributes	same
141	in C ++ composition is a relationship between----and---- objects	whole, part
142	suppose 12 class string assignment operator is overloaded with following declaration void operator=(const string &); what will happen when we will write following statement in main() str=str2=str3;where,str1.str2,str3 are object of class string	compiler will generate compile time error
143	in class B inherits from class A then it contains all characteristics of----	class A

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144	which of the following is not an example of multiple inheritance	car
145	which of the following can be created without any object of a class?	static data members
146	consider the following code segment class test{int a;int b;int c;}	junk value,5, junk value
147	object orientation approach can be achieved using objects and their-----	interactions
148	member functions defined inside a class declaration are------- by default	private
149	how can we identify classes from a given problem statement	by extracting nouns from problem statement
150	which of the following statement is not true about static variable of a class?	static variable belongs to particular instance of a class
151	there are------ types of constructor in C++	3
152	statement yasir is a friend of Ali and Ali is a friend of yasir is an example of	two way Association
153	this pointer cannot be passed implicitly to-------- functions	static member
154	which of the following issues can be caused by the use of friend function	all of the given
155	in------ send a message does not need to know exact class of the receiver	none of the given option
156	minimum classes required in a program for implementing multiple inheritance	3
157	-------Associates the object of the exact two classes	binary Association
158	main characteristics of information hiding is	keep the model simple
159	static data member is declared	inside the class
160	in expression b=c/d, the arity of division(/) operator is	2

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161	we can allocate dynamic memory in C ++ through operator	new
162	Which of the following is true about accessor functions?	all of the given option
163	in---- base class cannot always be replaced by the derived class	specialization
164	abstraction help to	reduce the complexity
165	relationship in which child object gets destroyed if parent object is destroyed	composition
166	object oriented programming is better than procedural programming because:	it is more close to reality
167	The derived class inherits behavior from the base class and also exhibits its own behavior. this concept is known as---	Overriding
168	the other name of subtyping is	Extension
169	A good model is------ related to life problem	closely
170	in generalization general class represents the -------- behavior of the class	common
171	how can we identify from a given problem statement?	by extracting noun from problem statement
172	which of the following is not a access specifier in C ++	hidden
173	in composition------ are called from composing objects to composed objects	destructors
174	a class have only---- destructor	one
175	suppose you have following C + + statement int old value=10; int new value=++old value; what will be the value of old value and newValue after executing above statements ?	oldVlue=11,newVlue=11
176	in constant Member function the type of this pointer is	constant pointer to constant data
177	----- is creating objects of one class inside another class	composition

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178	-------- Associates the objects of the exact three classes	ternary Association
179	generalization is implemented through	inheritance
180	which of the following is strong relationship	composition
181	composition is a strong relationship because	composed object cannot exist independently
182	----- is set of function of an object exposed of other objects	interface
183	suppose student is a class, which of the following defines constructor with one parameter for class student	student(char*aName);
184	which of the following is not true about constant Member function	all of the given option
185	----- define the order of evaluation of an operator is an expression	operator precedence
186	choose correct declaration of overloaded inequality(!=) operator for class string as non member friend function	friend bool operator!=(const string &s1,cont string &s2)
187	which of the following is most suitable advantage of information hiding	simplifies the model
188	a fan has wings, which type of relation exists between fan and Wings in this sentence	composition
189	multiple inheritance is implemented between class through------ symbol	comma(,)
190	postfix unary operator is implemented in C ++ using non Member function with arguments	two
191	Supposed derived class is inherited from base class what happens when a derived class object is created	the constructor of base class exact is executed before the constructor of derived class
192	assignment operator are	right associative

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193	a postfix unary operator is implemented in C ++ using number function with	1 dummy int argument
194	which of the following is true about exception functions	all of the given option

Question No: 1

Which part of an object exhibits its state?

► **Data   (Page 23)**

► Operations

► Any public part

► Any private part

Question No: 2

Inheritance is a way to

► organize data.

► pass arguments to objects of classes.

► **add features to existing classes without rewriting them.   (Page 27)**

► improve data-hiding and encapsulation.

Question No: 3

Suppose you have been given the following design,

"A person has a name, age, address and sex. You are designing a class to represent a type of person

called a patient. This kind of person may be given a diagnosis, have a spouse and may be alive".

Given that the person class has already been created, what of the following would be appropriate to

include when you design the patient class?

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► **registration date and diagnosis**

► age and sex

► sex and diagnosis

► diagnosis and age

Question No: 4

What problem(s) may occur when we copy objects without using deep copy constructor?

► Dangling pointer

► Memory Leakage

► **All of the given   (Page 147)**

► System crash

Question No: 5

this pointers are not accessible for static member functions.

► True   (Page 114)

► False

Question No: 6

A static member function cannot be declared.

► Static

► Implicit

► Explicit

► **Virtual**

Question No: 7

___ remain in memory even when all objects of a class have been destroyed.

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► **Static variables   (Page 111)**

► Instance variable

► Primitive variables

► None of given

Question No: 8

Friend functions are _____ functions of a class.

► None of given

► object member

► **non-member (Page 136)**

► data member

Question No: 9

_____, which means if A declares B as its friend it does NOT mean that A can access private data of B. It only means that B can access all data of A.

► **Friendship is one way only**

► Friendship is two way only

► NO Friendship between classes

► Any kind of friendship

Question No: 10

The statement objA=objB; will cause a compiler error if the objects are of different classes.

► **True**

► False

Question No: 11

Identify which of the following overloaded operator function's declaration is appropriate for the given call?

Rational_number_1 + 2.325

Where Rational_number_1 is an object of user defined class Rational_number.

► Rational_number operator+(Rational_number & obj);

► **Rational_number operator+(double& obj);   (Page 145)**

► Rational_number operator+(Rational_number &obj, double& num);

► operator+(double& obj);

Question No: 12

Which operator can not be overloaded?

► The relation operator (>=)

► Assignment operator (=)

► Script operator ([])

► **Conditional operator (? :) (Page 141)**

Question No: 13

To convert from a user-defined class to a basic type, you would most likely use

► a built-in conversion operator.

► a one-argument constructor.

► an overloaded = operator.

► **a conversion operator that's a member of the class.**

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Question No: 14

The technique in which we visualize our programming problems according to real life's problems is called

----

- ► structured programming
- ► **object oriented Programming   (Page 9)**
- ► procedural programming
- ► non of the given

Question No: 15

In object orientated programming, a class of objects cans _____ properties from another class of objects

- ► Utilize
- ► Borrow
- ► **Inherit**
- ► Adopt

Question No: 16

A C++ class is similar to --------------------

- ► **Structure**
- ► Header File
- ► Library File
- ► None of the given

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Question No: 17

What problem(s) may occur when we copy objects without using deep copy constructor?

► Dangling pointer

► Memory Leakage

► **All of the given   (Page 147)**

► System crash

Question No: 18

Suppose that the Test class does not have an overloaded assignment operator. What happens when an assignment a=b; is given for two Test objects a and b?

► The automatic assignment operator is used

► **The copy constructor is used**

► Compiler error

► Run-time error

Question No: 19

a'A static member function can be called, even when a class is not _____.

► Declared

► Define

► **Instantiated   C++ How to Program, Fifth Edition(Page 871)**

► Called

Question No: 20

Identify which of the following overloaded operator function's declaration is appropriate for the given call?

Rational_number_1 + 2.325

Where Rational_number_1 is an object of user defined class Rational_number.

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► Rational_number operator+(Rational_number & obj);

► **Rational_number operator+(double& obj);   (Page 145)**

► Rational_number operator+(Rational_number &obj, double& num);

► operator+(double& obj);

Question No:21

_____ provide the facility to access the data member.

► **accesser function   (Page 68)**

► private function

► inline function

► None of the given

Question No: 22

Constant objects cannot change their state,

► **True   (Page 105)**

► False

Question No: 23

The _____ relationship indicates that an object contains other objects.

► **None of given   (Page 53)**

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► 'has-a'

► 'is-a'

► 'be-

Question No: 24

Which one of the following features of OOP is used to derive a class from another?

► Encapsulation

► Polymorphism

► Data hiding

► **Inheritance   (Page 25)**

Question No: 25

___ is a relationship

► **Inheritance   (Page 25)**

► Polymarphism

► abstraction

► encapsulation

Question No: 26

_____ satisfy the condition of polymorphism

► Carbon

► Diamond

► Coal

► **all of the given   (Page 56)**

Question No: 27

A generalization-specialization relation between classes are implemented using

► data hiding

► friend classes

► encapsulation

► <mark>inheritance (Page 49)</mark>

Question No: 28

The >= operator can be overloaded.

► <mark>True (Page 140)</mark>

► False

Question No: 29

In order to free the memory occupied by the object, we use -------------

► Constructor

► <mark>Destructor (Page 92)</mark>

► Shallow Copy

► Deep Copy

Question No: 30

Which of the following is not an example of multiple inheritances?----------

► Mermaid

► <mark>Woman (Lecture No.5)</mark>

► None of the given

► Amphibious Vehicle

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Question No: 31

Static variable can be initialized more than once.

- ► <mark>True</mark>
- ► False

Question No: 32

A generic class showing all the common attributes and a behavior of other classes represents a very important feature in oop called --------

- ► <mark>Inheritance   (Page 26)</mark>
- ► Encapsulation
- ► Polymarphism
- ► Abstraction

Question No: 33

We can get only one unique value which can be used by all the objects of that class by the use of,

- ►<mark>static variables</mark>
- ►dynamic variables
- ►instance variables
- ►data members

Question No: 34

A member function having the same name as that of a class and a ~ sign with it is called,

- ►Constructor

►Getter

►Setter

►**Destructor   (Page 92)**

Question No: 35

Using encapsulation we can achieve

►**Information hiding   (Page 16)**

►Least interdependencies among modules

►Implementation independence

►All of given options

Question No: 36

Inheritance is a way to

►**make general classes into more specific classes.   (Page 27)**

►pass arguments to objects of classes.

►improve data hiding and encapsulation.

►providing class growth through natural selection.

Question No: 37

Static variable can be initialized more than once.

➢   True
➢   **False   (Page 107)**

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Question No: 38

For classes with common behavior, you can save effort by placing the common behavior in a _____.

►Derived Class

►**Base class   (Page 29)**

►Deprived Class

►Named class

Question No: 39

Which of the following are an advantage of OOP?

►OOP makes it easy to re-use the code

►It provides an ability to create one user defined data type by extending the other

►It provides the facility of defining Abstract data types through which real world entities can be

defined better.

►**All of the given options**   Click here for detail

Question No: 40

The >= operator can be overloaded.

►**True   (Page 140)**

►False

Question No: 41

A static member function cannot be declared.

►Static

►Implicit

►Explicit

►**Virtual**

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Question No: 42

Static variables act like a global variable in the context or scope of the class.

►**True**

►False

Question No: 43

The compiler won't object if you overload the * operator to perform division.

►**True**

►False

Question No: 44

We can use "this" pointer in the constructor in the body and even in the initialization list of any class if

we are careful,

►TRUE

►**False**

Question No: 45

A C++ class is similar to --------------------

►**Structure**

►Header File

►Library File

►None of the given

Question No: 46

Which operator can not be overloaded?

►The relation operator (>=)

►Assignment operator (=)

►Script operator ([])

►**Conditional operator (? :)   (Page 141)**

Question No: 47

An overloaded operator always requires one less argument than its number of operands.

►**True**

►False

Question No: 48

A generalization-specialization relation between classes are implemented using

►data hiding

►friend classes

►encapsulation

►**inheritance   (Page 49)**

Question No: 49

In OOP a class is an example of ___

►Data Type

►Abstract Type

►**User Defined Type   (Page 66)**

►None of the given

Question No: 50

A class can be identified from a statement by -------------

►**Noun   (Page 58)**

►Pronoun

►Verb

►Adverb

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Question No: 51

The members of a class that can be accessed without creating the object of the class is called

- ►Private member
- ►Data Member
- ►**Public Member   (How to Program page 983)**
- ►Static

Question No: 52

Suppose there is an object of type Person, which of the following can be considered as one of its

attributes

- ► Name
- ► Age
- ► Work()
- ► **Both Name and Age   (page 13)**

Question No: 53

What a derived class can add?

- ► New data members
- ► New member functions and New friend functions
- ► New constructors and destructor
- ► **All of given**

Question No: 54

____ is/are used to access information hidden within an object?

► Interface

► Private data members

► **Private member functions   (Page 69)**

► Both public and private members

 Question No: 55

this pointers are not accessible for static member functions.

► **True   (Page 14)**

► False

Question No: 56

A static member function cannot be declared.

► Static

► Implicit

► Explicit

► **Virtual**

Question No: 57

C++ compiler does not allow to dynamically allocate memory for objects

► **False**

► True

Question No: 58

Given the following class

class Base{

int Age=33;

}

How you can improve above class with respect to accessing the field Age?

► Define the variable Age as private

► Define the variable Age as protected

► **Define the variable Age as private and create a get method that returns it and a set method that updates it**

► Define the variable Age as protected and create a set method that returns it and a get method that updates it

Question No: 59

Friend class and friend function can be used as an alternate to each other

► **True**

► False

Question No: 60

Which of the following operators always takes no argument if overloaded?

► /

► -

► +

► **++**

Question No: 61

Suppose that the Test class does not have an overloaded assignment operator. What happens when an assignment a=b; is given for two Test objects a and b?

► The automatic assignment operator is used

► **The copy constructor is used**

► Compiler error

► Run-time error

Question No:62

Assume a class C with objects obj1, obj2, and obj3. For the statement obj3 = obj1 - obj2 to work

correctly, if the overloaded - operator must

► take two arguments.

► **return a value**

► create a named temporary object.

► take four arguments

Question No: 63

Which operator can not be overloaded?

► The relation operator (>=)

► Assignment operator (=)

► Script operator ([])

► **Conditional operator (? :)   (Page 141)**

Question No: 64

We achieve independence of internal implementation from its external interface through-----------

► Encapsulation

► Information Hiding

► **Abstraction**

► both encapsulation and information hiding

Question No: 65

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Which one of the following is not an object association?

► Simple Assocation

► **Inheritance   (Page 49)**

► Aggregation

► Composition

Question No: 66

Keeping in view the principle of abstraction, which of the above information the company needs to save as employee's record?

► 2, 4

► 1, 3, 5

► **1, 2, 3   (Lecture No.3)**

► 1, 2, 3, 4

Question No: 67

What a derived class can add?

► New data members

► New member functions and New friend functions

► New constructors and destructor

► **All of given**

Question No: 68

The concept of derived classes is involved in,

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► **inheritance   (Page 25)**

► encapsulation

► structure

► array

Question No: 69

Your chief Software designer has shown you a sketch of the new Computer parts system she is about to create. At the top of the hierarchy is a Class called Computer and under this are two child classes. One is called LinuxPC and one is called WindowsPC. The main difference between the two is that one runs the Linux operating System and the other runs the Windows System (of course another difference is that one needs constant re-booting and the other runs reliably). Under the WindowsPC are two Sub classes one called Server and one Called Workstation. How might you appraise your designers work?

► Give the goahead for further design using the current scheme

► **Ask for a re-design of the hierarchy with changing the Operating System to a field rather than Class**

► Ask for the option of WindowsPC to be removed as it will soon be obsolete

► Change the hierarchy to remove the need for the superfluous Computer Class.

Question No: 70

Consider the code below,

```
class Fred {
public:
Fred();



...
};
```

int main()

{

Fred a[10];

Fred* p = new Fred[10];

...

}

Select the best option,

► Fred a[10]; calls the default constructor 09 times

Fred* p = new Fred[10]; calls the default constructor 10 times

► Produce an error

► **Fred a[10]; calls the default constructor 11 times**

Fred* p = new Fred[10]; calls the default constructor 11 times

► Fred a[10]; calls the default constructor 10 times

Fred* p = new Fred[10]; calls the default constructor 10 times

Question No:71

Which construct is the source for the creation of an object?

► Destructor of the class

► **New operator**

► Delete operator

► Constructor of the class

Question No: 72

this pointers are not accessible for static member functions.

► **True   (Page 14)**

► False

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Question No: 73

When a variable is define as static in a class then all object of this class,

- ► Have different copies of this variable
- ► **Have same copy of this variable**
- ► Can not access this variable
- ► None of given

Question No: 74

___ remain in memory even when all objects of a class have been destroyed.

- ► **Static variables   (Page 111)**
- ► Instance variable
- ► Primitive variables
- ► None of given

Question No: 75

Given the following class

class Base{

    int Age=33;

}

How you can improve above class with respect to accessing the field Age?

- ► Define the variable Age as private
- ► Define the variable Age as protected
- ► **Define the variable Age as private and create a get method that returns it and a set method that updates it**
- ► Define the variable Age as protected and create a set method that returns it and a get method that updates it

Question No: 76

The life of sub object is not dependant on the life of master class in _____.

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► Composition

► **Aggregation**   (Page 134)

► Separation

► None of the given

Question No: 77

Which one is not keyword in C++?

► operator

► **B_op**

► const

► None of given

Question No: 78

The >= operator can be overloaded.

► **True**   (Page 140)

► False

Question No: 79

A template provides a convenient way to make a family of

► variables and data members

► **functions and classes**

► classes and exceptions

► programs and algorithms

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Question No: 80

Which one of the following terms must relate to polymorphism?

- ► Static allocation
- ► Static typing
- ► **Dynamic binding   (How to program , page 1103)**
- ► Dynamic allocation

Question No: 81

What is true about function templates?
- ► The compiler generates only one copy of the function template
- ► **The compiler generates a copy of function respective to each type of data   (Page 257)**
- ► The compiler can only generate copy for the int type data
- ► None of the given.

Question No: 82

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► **Templates**
- ► Overloading
- ► Data hiding
- ► Encapsulation

Question No: 83

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template <>

class Vector<char*> { }

This is an example of partial specialization.

► **True   (Page 281)**

► False

Question No: 84

Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

► True

► **False   Click here for Detail**

Question No: 85

A non-virtual member function is defined in a base class and overridden in a derived class; if that function is called through a base-class pointer to a derived class object, the derived-class version is used.

► True

► **False**

Question No: 86

Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access

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► **public members of Derv.**

► protected members of Derv.

► private members of Derv.

► protected members of Base.

Question No: 87

In order to define a class template, the first line of definition must be:

► **template <typename T>   (Page 281)**

► typename <template T>

► Template Class <ClassName>

► Class <Template T>

Question No: 88

 If there is a pointer p to objects of a base class, and it contains the address of an object of a derived class, and both classes contain a nonvirtual member function, ding(), then the statement p->ding(); will cause the version of ding() in the ____ class to be executed.

► Base

► Derived

► Abstract

► **virtual   (not sure)**

Question No: 89

When the base class and the derived class have a member function with the same name, you must be

more specific which function you want to call (using _____).

► scope resolution operator

► dot operator

► null operator

► **Operator overloading   (Page 204)**

Question No: 90

Non Template Friend functions of a class are friends of _____ instance/s of that class.

► **All**

► One specific

► All instances of one date type

► None of the given options

Question No: 91

The find() algorithm

► finds matching sequences of elements in two containers.

► finds a container that matches a specified container.

► **takes iterators as its first two arguments.**

► takes container elements as its first two arguments.

Question No: 92

If you define a vector v with the default constructor, and define another vector w with a one-argument constructor to a size of 11, and insert 3 elements into each of these vectors with push_back(), then the size() member function will return __ for v and ___ for w.

► 11 for v and 3 for w.

► 0 for v and 0 for w.

► 0 for v and 3 for w.

► **3 for v and 11 for w.**

Question No: 93

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Which of the following may not be an integral part of an object?

- ► State

- ► Behavior

- ► Protected data members

- ► **All of given   (not sure)**

Question No: 94

Which is not the Advantage of inheritance?

- ► providing class growth through natural selection.

- ► facilitating class libraries.

- ► **avoiding the rewriting of code.**

- ► providing a useful conceptual framework

How can we differentiate between constructor and destructors?

Destructor are preceded by a tilde(~) symbol and constructor are not preceded with any symbol.

If you do not initialize static variable of int type then it is automatically initialized with _____

0

Choose the correct statement

All of the given options

____associates the objects of the exact two classes.

Binary association

Which of the following is the advantage of inheritance?

Reusability

Member function defined inside a class declaration are___by default

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Class is a single class provides functionally to operate on different type of data.

Template

Which of the following may inherit from an ordinary class?

All of the given

Which of the following represents complete specialization? Template <int.char>

Are called Non-type parameters

Which of the following is correct way to define a template class X?

typename<class T > class X {};

Which of the following is a sequence Container?

Vector

In resolution order of function template compiler searches for in the end.

Generic Template

May inherit from a complete specialization.

All of the given option

Which of the following may inherit from an ordinary class?

All of the given option

Which of the following is NOT an Associate Container?

Group

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When was specialize a function template .it is called

Function template Overriding

Which of the following types of Inheritance is used to model "Implemented in terms of" relationship?

Private

In case of protected inheritance, public members of base class will be in derived class?

Protected

In C++ by default access of classes is .

Private

If there is a pointer p to objects of a base class , and it contains the address of an object of a derived Class, and both classes contain a virtual member function, ding(), then the statement p->ding(); will cause the version of ding() in the class to be executed.

Derived

In case of private inheritance, private members of base class will be in derived class.

Hidden

Defines the order of evaluation of an operator in an expression.

Operator Precedence

Which of the following is the correct syntax of declaring static variable "count" of type int?

Static int count;

Defining a function in class body, the compiler treats that function as:

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What is the output of the following code?Int main()

{intconst x = 10; cout<< ++x; return 0;}

11

Which of the following statements best describes the Constructor?

Constructor is used to initialize the data members of a class.

What will the value of variables a, b, and c after instantiating an object of above class?

Junk Value, 5, Junk value

Which of the following is a strong relationship?

Inheritance binding means that target function for a call is selected at compile time. Static

In case of public inheritance, protected members of base class will be in derived class.

Protected

A template provides a convenient way to make a family of

functions and classes

Function overriding is done in context of,

Derived and base class

In Protected Inheritance the public members of base class become in derived class.

Protected

In resolution order compiler search firstly .

Ordinary function

Compiler generated copy constructor performs .

Both Shallow aperformscopy

A pure virtual function is a virtual function that

causes its class to be abstract

Methodologies to the development of reusable software relate to .

Generic programming

In C++ generic programming is done using .

Packages

Consider the code below, class class1{

Private:

Function func1 of class1 is in class2.

Private

When derived class has user defined assignment operator.

Compiler itself calls base Class default constructor.

A Child class can call constructor of its parent class through,

Both from its constructor initialization list or body

How many objects of a given class may be constructed in an application?

As many as the Application asks for

Which of the following is True about Destructor?

All of the given

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How many objects are involved in the N-ary association?

More than 3

Which of the following can be the behavior of an object "Usman"?

Eat

In C++, Composition is a relationship between and objects.

Parent, Child

Generalization is approach.

Top-bottom

The tells the compiler what task the function will be performing.

Function declaration

Suppose str1, str2 and str3 are objects of class String. Choose appropriate declaration of overloaded Assignment operator for the following statement to work correctly.

String& operator =(const String &);

In operator overloading, which of the following operator takes one or no argument.

<<

Class is blueprint of .

Objects

Polymorphism makes the system:

All of the given

If class B inherits from class A then it contains all characteristics of .

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What is meant by multiple inheritance?

Deriving a derived class from more than one base class

_____**Class is a single class provides functionally to operate on different type of Data.**

Template

Which of the following may inherit from an ordinary class?

All of the given

Which of the following represents complete specialization?

Template <int.char>

The parameters given in template definition other than those used for mentoring templates types are called

Non-type parameters

Which of the following is correct way to define a template class X?

Typename<class T > class X {};

Which of the following is a sequence Container?

Vector

In resolution order of function template compiler searches for_____in the end.

Generic template

_____**may inherit from a complete specialization.**

All of the given option

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Which of the following may inherit from an ordinary class?

All of the given option

Which of the following is NOT an Associate Container?

Group

Which of the following is NOT casting operator in C++ standard?

Var_cast

Which of the following types of Inheritance is used to model "Implemented in terms of" relationship?

Private

In case of protected inheritance, public members of base class will be_____in derived Class?

Protected

In C++ by default access of classes is_____.

Private

If there is a pointer p to objects of a base class , and it contains the address of an object of a Derived class, and both classes contain a virtual member function, ding(), then the statement p->ding(); will cause the version of ding() in the_____class to be executed.

Derived

Suppose we have defined derived class copy constructor but have not defined base class Copy constructor then compiler will,

Use base class default constructor

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In case of private inheritance, private members of base class will be_____in derived Class.

Hidden

_____defines the order of evaluation of an operator in an expression.

Operator Precedence

Which of the following is the correct syntax of declaring static variable "count" of type int?

Static int count;

When was specialize a function template .it is called_____

Function template overriding

Which of the following is/are key component(s) of standard Template Library?

All of the given option

Each_____of a template class by default becomes function template.

Member function

In statement "template<class U,int |=5>"the non type parameter is

Int |

Solution order highest priority is given to_____in template

Complete template

In case of template specialization ,if compiler cannot find required complete

Partial specialization

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_____is a pointer which is declared outside the _____

Cursor, Container

Suppose a template class "Test" has a static data member. How many copies of this static daya member following line of C++ code?

Three

In statement template <class T,class U ,int |=5> the non-parameter is_____.

Class U

A template argument is preceded by the keyword_____.

Class.

We can have_____type of member functions in a class.

All of the given

Which of the following is a strong relationship?

Inheritance

_____Binding means that target function for a call is selected at compile time.

Static

In case of public inheritance, protected members of base class will be_____in derived Class.

Protected

A template provides a convenient way to make a family of

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Function overriding is done in context of,

Derived and base class

Which of the following is TRUE.

Derived class pointer can be used as Base class pointer

The default inheritance mode is,

Private inheritance

In Protected Inheritance the public members of base class become_____in derived class.

Protected

In resolution order compiler search firstly_____.

Ordinary function

Compiler generated copy constructor performs_____.

Both Shallow and Deep copy

A pure virtual function is a virtual function that

Causes its class to be abstract

Methodologies to the development of reusable software relate to_____.

Generic programming

In C++ generic programming is done using_____.

Packages

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Consider the code below,

Class class1{

Private:

Void func1();

};

Class class2 : private class1 {

};

Function func1 of class1 is_____in class2.

Private

When derived class has user defined assignment operator.

Compiler itself calls base class default constructor.

A Child class can call constructor of its parent class through,

Both from its constructor initialization list or body

How many objects of a given class may be constructed in an application?

As many as the application asks for

The other name of specialization is_____.

Restriction

How can we differentiate between constructors and destructors?

Destructors are preceded with a tilde (~) symbol, and constructors are not preceded with any symbol.

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How many entities are there in the following scenario?Ali lives in the house that is near the Tree and he also drives his car.

2

Which of the following is True about Destructor?

All of the given

How many objects are involved in the N-ary association?

More than 3

Which of the following can be the behavior of an object "Usman"?

Eat

In C++, Composition is a relationship between_____and_____objects.

Parent, child

If you have three classes in a C++ program A, B, and C where class A inherits from class B, then class_____contains all the characteristics of class_____.

A, B

In case when we define the function outside the class then we must use the keyword

_____to make the function inline.

Inline

Mermaid is an example of:

Multiple Inheritance

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Assignment operators are:

Right associative

Generalization is_____approach.

Top-bottom

The_____tells the compiler what task the function will be performing.

Function declaration

Uppose str1, str2 and str3 are objects of class String. Choose appropriate declaration of Overloaded assignment operator for the following statement to work correctly.

String& operator =(const String &);

In operator overloading, which of the following operator takes one or no argument.

<<

Class is blueprint of_____.

Objects

Polymorphism makes the system:

All of the given

If class B inherits from class A then it contains all characteristics of_____.

Class A

What is meant by multiple inheritance?

Deriving a derived class from more than one base class

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In C++, which of the following operator can only be overloaded as a member function of the class?

Stream Extraction Operator: >>

Insertion operator is_____associative.

Left to Right

In expression c1*c2+c3-c4 which of the following will be executed in first order?

C1*c2

Suppose for a class String, assignment operator is overloaded with following declaration.

Void operator =(const String &);

What will happen when we will write following statement in main()?

Str1 = str2 = str3

Where, str1, str2 and str3 are objects of class String.

Compiler will generate compile time error.

Identify the abstract class from the given statement:

"Vehicle class is base class. Bus, Car, and Truck are derived classes"

Vehicle

Which of the following operators operate on one operand?

Unary Operators

Subtyping means that derived class is behaviorally_____with the base class.

Compatible

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In_____, Base class can't always be replaced by the derived class.

Specialization

The overloaded '-' operator for Complex class will be called with reference to_____in the following statement

Complex C3 = C1 – C2;

Complex

What is a class?

A class is a description of a kind of object

In polymorphism, messages can be interpreted in different ways depending upon the _____class.

Receiver

Suppose there is an object of type Person, which of the following can be considered as one of its attributes?

Name

Which of the following is True about class?

All of the given

In C++, which of the following keywords works only with constructors?

Explicit

Choose correct declaration of overloaded stream insertion operator for class String as non-member friend function.

Friend ostream& operator << ();

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Which of the following classes are used by Amphibious vehicle to inherit characteristics?

Both Land & Water Vehicle

Suppose derived class is inherited from base class. What happens when a derived class object is created?

The constructor of base class is executed before the constructor of derived class.

Suppose str1, str2 and str3 are objects of class String. Choose appropriate declaration of

Overloaded assignment operator for the following statement to work correctly.

Str1 = str2 = str3;

String& operator =(const String &);

In C++, which of the following is defined as stream insertion operator?

<<

Choose correct declaration of overloaded inequality (!=) operator for class String as non-Member friend function.

None of the given options

Relationship in which child object gets destroyed if parent object is destroyed.

Composition

How the information hidden within an object can be accessed?

Through its interface

Which of the following defines default constructor for class "Student"?

Student() {//…

}

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The sub-object's life is not dependent on the life of master class in_____.

Aggregation

Hiding the implementation details makes program:

Easy to understand

The functions defined inside the class are by default_____.

Inline

Which of the following statement is TRUE about static function of a class?

It is used to access static data members.

Deconstruct is a function which has the same name as that of class but starts with a—– sign

~

'this' pointer cannot be passed implicitly to_____functions.

Static Member

Which of the following can be the behavior of an object "Usman"?

Eat

In Object Oriented programming, objects communicate with each other through _____

Messages

Constructor is used to_____the objects of a class.

Initialize

Which of the following is NOT an access specifier in C++?

Hidden

The other name of subtyping is_____.

Extension

Suppose a class does not have any constructor. What will happen when an object of this class is created?

Compiler will call implicit default constructor.

In case when we define the function outside the class then we must use the keyword _____To make the function inline.

Inline

In constant member function the type of this pointer is:

Constant pointer to constant data

In_____, base class can be replaced by the derived class.

Extension

We can get the address of a variable stored in a pointer using_____:

& symbol

A child inherits characteristics from its_____.

Parent

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Which of the following function declaration is correct to overload the + operator as member function in complex class?

Complex operator +(const Complex &rhs);

Which of the following is not true about constant member function?

All of the given options

What is the general syntax of overloading Unary Operator as member function of the class?

TYPE & operator OP ();

_____is creating objects of one class inside another class.

Composition

Which of the following is true about constructor?

All of the given option

Memory is allocated to non static members only, when

Object is created

A child inherit characteristics from its ?

Parents

A post-fix unary operator is implemented in C++ member function with

1 dummy int arguments

Which of the following is the example of objects in school?

Books , pages

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Suppose student is a class, which of the following constructor with one parameter for class student?

<mark>Student()</mark>

If you have three classes in a C++ program A, B, and C where class A inherits from class B, then class_____contains all the characteristics of class_____.

<mark>A,C</mark>

In_____base class can be replaced by the derived class.

<mark>Extension</mark>

The concept of derived class is involved in _____

<mark>Inheritance</mark>

Suppose person is a class which of the following statement defines an object of class person?

<mark>Create person object</mark>

Which of the following is true about Accessor Functions?

<mark>All of the given options.</mark>

The other name of subtyping is

<mark>Extension</mark>

Which of the following statement best describes the constructor

<mark>Constructor is used to initialize the data member of a class.</mark>

Which of the following is true about inline function?

<mark>It is used by compilers to improve efficiency of the program</mark>

Which of the following is defined as stream extraction operator in c++?

>>

An object has

_____ **interfac**

e(s) One or more than one

Which of the following is an advantage of

encapsulation? Better understanding

Which of the following represents the two-way

association? Employee works for the company

____ **is the weakest link between**

object. Simple association

In composition _____ **are called from composing objects to compound**

objects. Constructor

In OOP we can achieve reusability though _____ Inheritance

Generalization is implemented through

Inheritance

Suppose str1, str2, and str3 are objects of class string. Choose appropriate declaration of overloaded

Assignment operator for the following statement to work

correctly. String& operator=(const String &)

In C++ which of the following is defined as stream insertion operator.

<<

Abstraction hides the

_____**deta**

ils.Relevant

Minimum classes required in a program for implementing multiple

inheritance.3

Composition is_____and aggregation is_____relationship.

Strong, weak

Minimum classes required for implementing multiple

inheritance.At least 3

We can access a private static variable through.

Static data member

The process of extracting common characteristics from two or more classes and combiningthem into generalized superclass is called ____

Generalization

Which of the following is true about

polymorphism?All of the given

Which of the following can be the behavior of an object "Usman"?

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Eat

Composition is

_____relations

hipPart whole

Which of the following is a strong

relationship?Composition

Which of the following defines default constructor for class student?

Student(){/...

}

This car is composed of wheels. What is the relationship between car and wheels?

Composition

In_____base class can be replaced by the derived

class.Extension

____defines the order of evaluation of an operator is an

expression.Operator precedence

In composition___are called from composing objects to composed

objects.Destructor

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How many objects of a given class may be constructed in an

application?As many as the application asks for

Relationship in which child object gets destroyed, If parent object is

destroyed.Composition

Which of the following is not true about constructor?

Constructor is a special function which can have different name than class name.

Suppose test is a class, void show() is its public member function. Which of the following is correct call of

Show() function using Test pointer

ptr?Ptr->show()

Which of the following features of OOP is used to deal with only relevant

details?Abstraction

In C++ the subscript operator must be overloaded as a____of the class, with one parameter of

____type.

Member function, int

Identify the abstract class from the given statement

"vehicle class is base class. Bus, Car and truck are derived classes"

Vehicle

In Object Oriented programming objects communicate with each other through _____

Messages

_____associates the objects of the exact three

classes.Ternary Association

An objects has attributes, operations and _____

Unique identity

In C++ which of the following keywords works only with constructors?

Explicit

Which of the following allows to reuse characteristics of more than one parent class?

Multiple Inheritance

How many objects are involved in the Binary

association?2

Which of the following features of OOP is used to deal with only relevant details?

Abstraction

The overloaded '-' operator for complex class will be called with reference to_____in the following

Statement

Complex C3 = C1 –

C2

Complex

Static data member is declared

Inside the class

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Class is blue print of ____ **Object**

Which of the following is true about inline

functions?All of the given options

How many objects can be created once a class is

declared?As many as needed

Suppose you have following C++

statementsIntoldValue=10

intviewValue * ++ old/Value

What will be the value of old/Value and new/Value after executing above statement?

Old/Value=11, new/Value=11

In ____ **base class can't always be replaced by the derived class.**

Specialization

Which of the following will happen when a constant function tries to change the value of datamembers of the class?

Complex time error will occur

____ **is set of functions of an objects exposed to other**

objects.Interface

How many objects are involved in the Ternary

association?3

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Mermaid is an

example of <mark>Multiple</mark>

<mark>inheritance</mark>

Which of the following is the correct syntax of declaring static variable 'count' of type int?

<mark>Static int count</mark>

Which of the following operators operate on one

operand? <mark>Unary Operators</mark>

Object Data includes ____

<mark>Both static and attributes of an objects</mark>