

# Comprehensive Question Preview

<p>In C++ code , variables can be passed to a function by</p>	<ol style="list-style-type: none"><li>1.</li><li>A. Pass by value</li><li>2.</li><li>A. Pass by reference</li><li>3.</li><li>A. Pass by pointer</li><li>4.</li><li>A. All the above</li></ol>
<p>What is output of the following program?</p> <pre>#include using namespace std; class base {     int val1, val2; public:     int get()     {         val1 = 100;         val2 = 300;     }     friend float mean(base ob); }; float mean(base ob) {     return float(ob.val1 + ob.val2)/2; } int main() {     base obj;     obj.get();     cout &lt;&lt; mean(obj);     return 0; }</pre>	<ol style="list-style-type: none"><li>1.</li><li>200</li><li>150</li><li>100</li><li>300</li></ol>
<p>When a class serves as base class for many derived classes, the situation is called</p>	<ol style="list-style-type: none"><li>1. Polymorphism</li><li>2. Hierarchical inheritance</li><li>3. Hybrid inheritance</li><li>4. Multipath inheritance</li></ol>
<p>When two or more classes serve as base class for a derived class, the situation is known as</p>	<ol style="list-style-type: none"><li>1. polymorphism</li><li>2. encapsulation</li><li>3. hierarchical inheritance</li><li>4. multiple inheritance</li></ol>
<p>Data members which are static</p>	<ol style="list-style-type: none"><li>1. cannot be assigned a value</li><li>2. can only be used in static functions</li><li>3. cannot be defined in a Union</li><li>4. can be accessed outside the class</li></ol>

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Data members which are static	<ol style="list-style-type: none"> <li>cannot be assigned a value</li> <li>can only be used in static functions</li> <li>cannot be defined in a Union</li> <li>can be accessed outside the class</li> </ol>
..... member variable is initialized to zero when the first object of its class is created where no other initialization is permitted.	<ol style="list-style-type: none"> <li>friend</li> <li>static</li> <li>onlineexam./span&gt;</li> <li>private</li> </ol>
A ..... member function can only be called by another function that is member of it's class.	<ol style="list-style-type: none"> <li>friend</li> <li>static</li> <li>onlineexam./span&gt;</li> <li>private</li> </ol>
A member function can be called by using its name inside another function of the same class, which is known as ..... of member function.	<ol style="list-style-type: none"> <li>sub function</li> <li>sub member</li> <li>nesting</li> <li>sibling</li> </ol>
In C++, the declaration of functions and variables are collectively called .....	<ol style="list-style-type: none"> <li>class members</li> <li>function members</li> <li>object members</li> <li>member variables</li> </ol>

Only the ..... can have access to the private members and private functions.	<ol style="list-style-type: none"> <li>data functions</li> <li>inline functions</li> <li>member functions</li> <li>member variables</li> </ol>
The binding of data and functions together into a single class-type variable is referred to as	<ol style="list-style-type: none"> <li>Encapsulation</li> <li>Inheritance</li> <li>Polymorphism</li> </ol>

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	4. Dynamic binding
The variables declared inside the class are known as data members and functions are known as	1. data functions 2. inline functions 3. member functions 4. member variables
When the function is defined inside a class, it is treated as	1. data function 2. inline function 3. member function 4. member variable
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	1. i-True, ii-True 2. i-False, ii-True 3. i-True, ii-False 4. i-True, ii-True
..... can be invoked like a normal function without the help of any object.	1. constant member function 2. private member function 3. static member function 4. friend function
A ..... can only be called by another function that is member of its class.	1. constant member function 2. private member function 3. static member function 4. friend function
A ..... can have access to only other static members declared in the same class.	1. constant member function 2. private member function 3. static member function 4. friend function
A ....., although not a member function, has full access rights to the private members of the class.	1. constant member function 2. private member function 3. static member function 4. friend function
A static member function can be called using the ..... instead of its objects.	1. variable name 2.

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	function name 3. Class name 4. object name
If a member function does not alter any data in the class, that may be declared as .....	1. constant member function 2. private member function 3. static member function 4. friend function
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	1. i-True, ii-True 2. i-False, ii-True 3. i-True, ii-False 4. i-True, ii-True
Static variables are associated with the class itself rather than with any class object, they are also known as .....	1. class variables 2. object variables 3. function variables 4. internal variables
Static variables are like ..... as they are declared in a class declaration and defined in the source file.	1. inline member function 2. non inline member function 3. static member function 4. dynamic member function
While using an object as a function argument, a copy of the entire object is passed to the function in ..... method	1. pass-by-value 2. pass-by-reference 3. pass-by-variable 4. pass-by-function
Function overloading and Operator overloading are the types in compile time polymorphism? (T/F)	1. True 2. False 3. 4.
A base class will offer	1. offer more specific objects than its derived classes 45% 2. correspond to something in the rest world 0% 3. behave badly when the chops are down 0% 4. be a generalized version of its derived classes 56%
Choose most appropriate statement	1.

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	<p>An abstract base class can have pure virtual destructor 43%</p> <p>2. An abstract base class can have only virtual destructor 0%</p> <p>3. An abstract base class can have non virtual destructor 29%</p> <p>4. <b>An abstract base class cannot have destructor</b> 29%</p>
<p>If a base class member access is public, and an inherited class accesses specifier is private, which of the following statement is true ?</p>	<p>1. <b>The base class member can be accessed by derived class objects</b> 43%</p> <p>2. The base class members cannot be accessed by the derived class members 29%</p> <p>3. The derived class members can be accessed by the base class objects 0%</p> <p>4. None of above</p>
<p>Which of the following is/are false</p>	<p>1. Inheritance is deriving new class from existing class 10%</p> <p>2. <b>In an inheritance, all data and function members of base class are derived by derived class</b> 46%</p> <p>3. We can specify which data and function members of base class will be inherited by derived class 19%</p> <p>4. We can add new functions to derived class without recompiling the base class 28%</p>

<p>A function that changes the state of the <b>cout</b> object is called _____?</p>	<p>1. a Member function</p> <p>2. an Adjuster function</p> <p>3. <b>a Manipulator function</b></p> <p>4. an Operator function</p>
<p>An array element is accessed using _____ .</p>	<p>1. A first-in-first-out approach.</p> <p>2. The dot operator.</p> <p>3. A member name.</p> <p>4. <b>An index number.</b></p>
<p>Format flags may be combined using the _____.</p>	<p>1. <b>Bitwise OR operator (   )</b></p> <p>2. Logical OR operator (    )</p> <p>3. Bitwise AND operator ( &amp; )</p> <p>4. Logical AND operator ( &amp;&amp; )</p>
<p>The following statement where T is true and F is false, <b>T &amp;&amp; T    F &amp;&amp; T</b> _____ .</p>	<p>1. <b>is true</b></p> <p>2.</p>

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	is false 3. is wrong 4. Not applicable in C language
The function whose prototype is <code>void getData(Item *thing);</code> receives _____.	1. A <b>pointer to a structure.</b> 2. A reference to a structure. 3. A copy of a structure. 4. Nothing
To hide a data member from the program, you must declare the data member in the _____ section of the class.	1. Protected 2. Confidential 3. Hidden 4. <b>Private</b>
Which feature in Object Oriented Programming allows reusing code?	1. Polymorphism 2. <b>Inheritance</b> 3. Encapsulation 4. Data hiding
Which of the following formulas can be used to generate random integers between 1 and 10?	1. <b><math>1 + \text{rand}() \% (10 - 1 + 1).</math></b> 2. $1 + (10 - 1 + 1) \% \text{rand}().$ 3. $10 + \text{rand}() \% (10 - 1 + 1).$ 4. $10 + \text{rand}() \% (10 + 1).$
Which of the following will store the number 320000 as a Float number?	1. <b><code>CounPop = (float) 3.2e5;</code></b> 2. <code>CounPop = (float) 3.2e6;</code> 3. <code>CounPop = (float) .32e5;</code> 4. <code>CounPop = (float) .32e7;</code>
A class can serve as base class for many derived classes	1. <b>True</b> 2. False 3. 4.

Which of the following relation between A.M., G.M. and H.M. holds?	1. <b><math>A.M. = G.M. = H.M.</math></b> 2. <b><math>A.M. \leq G.M. \leq H.M.</math></b> 3. <b><math>A.M. \geq G.M. \geq H.M.</math></b>
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	<p>4.</p> <p><b>A.M. <math>\geq</math> G.M. <math>\leq</math> H.M.</b></p>
Sum of squares of the deviations is minimum when deviations taken from	<p>1. <b>Mean</b></p> <p>2. Median</p> <p>3. Mode</p> <p>4. Geometric Mean</p>
Which of the following can be classified as hypothetical population?	<p>1. All labourers of a factory</p> <p>2. Female population of a country</p> <p>3. <b>Population of real numbers between 0 and 100</b></p> <p>4. Students of the world</p>
A and B play 10 games of chess of which A won 5 games, B won 3 games and 2 games ended in a draw. The probability of B winning a game in future is	<p>1. <math>\frac{1}{2}</math></p> <p>2. <math>\frac{3}{10}</math></p> <p>3. <math>\frac{1}{5}</math></p> <p>4. <math>\frac{2}{5}</math></p>
The hypothesis usually tested by analysis of variance is	<p>1. Equality of variances of the effects</p> <p>2. Equality of means of the effects</p> <p>3. Equality of errors of the factors</p> <p>4. Equality of median of the effects</p>
A dice is tossed, If $X$ is the random variable denote the number on the dice, the expected value of $X$ is	<p>1. <math>\frac{1}{6}</math></p> <p>2. <math>\frac{7}{2}</math></p> <p>3. <math>\frac{7}{6}</math></p> <p>4. 1</p>
The decision whether a test of hypothesis is one tailed or two tailed, depends on	<p>1. Null hypothesis</p> <p>2. Sample size</p> <p>3. Level of significance</p> <p>4. Alternative hypothesis</p>
<pre>#include &lt;iostream&gt; using namespace std; int main() {     const char* p = "12345";     const char **q = &amp;p;     *q = "abcde";     const char *s = ++p;     p = "XYZWVU";     cout &lt;&lt; *++s;</pre>	<p>1. Compiler Error</p> <p>2. <b>c</b></p> <p>3. b</p> <p>4. Garbage Value</p>

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<pre> return 0; } </pre>	
<pre> #include &lt;stdio.h&gt; int main() {     int ary[4] = {1, 2, 3, 4};     int *p = ary + 3;     printf("%d\n", p[-2]); } </pre>	1. 1 <b>2.</b> <b>2</b> 3. run time error 4. Some garbage value
<pre> #include &lt;stdio.h&gt; void main() {     char *s= "hello";     char *p = s;     printf("%c\t%c", p[0], s[1]); } </pre>	1. run time error 2. h h 3. <b>h e</b> 4. h l
<pre> #include &lt;stdio.h&gt; void main() {     char *s = "hello";     char *p = s;     printf("%p\t%p", p, s); } </pre>	1. Different address is printed 2. <b>Same address is printed</b> 3. run time error 4. no address is printed
<pre> #include void main() {     int a[3] = {1, 2, 3};     int *p = a;     printf("%p\t%p", p, a); } </pre>	1.Same address is printed. 2.Different address is printed. 3.No address is printed <b>4.Run time error</b>
<p>Mention the output of below program?</p> <pre> #include &lt;iostream&gt; using namespace std; void print(int i) {     cout &lt;&lt; i; } void print(double f) {     cout &lt;&lt; f; } int main(void) {     print(5);     print(500.263);     return 0; } </pre>	1. <b>5500.263</b> 2. 500.263 3. 500.2635 4. 500.3
<p>A CONSTRUCTOR THAT ACCEPTS _____ PARAMETERS IS CALLED THE DEFAULT CONSTRUCTOR</p>	1. ONE 2. TWO 3. THREE



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	<ol style="list-style-type: none"> <li>4.</li> </ol> <b>NO</b>
A DESTRUCTOR IS USED TO DESTROY THE OBJECTS THAT HAVE BEEN CREATED BY A .....	<ol style="list-style-type: none"> <li>1. OBJECT</li> <li>2. CLASS</li> <li>3. FUNCTION</li> <li>4. <b>CONSTRUCTOR</b></li> </ol>
According to boolean algebra absorption law, which of following is correct?	<ol style="list-style-type: none"> <li>1. <math>x+xy=x</math></li> <li>2. <math>(x+y)=xy</math></li> <li>3. <b><math>xy+y=x</math></b></li> <li>4. <math>x+y=y</math></li> </ol>
<p>Assume the output of the given program</p> <pre>#include&lt;iostream&gt; using namespace std; class Empty {}; int main() {     Empty obj;     cout &lt;&lt; sizeof(obj);     return 0; }</pre>	<ol style="list-style-type: none"> <li>1. <b>A non-zero value</b></li> <li>2. Zero</li> <li>3. Compile time Error</li> <li>4. Runtime Error</li> </ol>
In any ways, Non-member function can have access to the private data of the class	<ol style="list-style-type: none"> <li>1. Virtual function</li> <li>2. Static function</li> <li>3. <b>Friend function</b></li> <li>4. None</li> </ol>
In OOP terminology, an object's member variables are often called as _____ and its member functions are sometimes referred to as _____.	<ol style="list-style-type: none"> <li>1. Values, morals</li> <li>2. Data, activities</li> <li>3. Activities, behaviors</li> <li>4. <b>Attributes, methods</b></li> </ol>
Objects created using new operator are stored in	<ol style="list-style-type: none"> <li>1. Virtual memory</li> <li>2. Cache memory</li> <li>3. <b>Heap memory</b></li> <li>4. Stack</li> </ol>
Overloaded functions are	<ol style="list-style-type: none"> <li>1. Very long functions that can hardly run</li> <li>2. One function containing another one or more functions inside it.</li> <li>3.</li> </ol>

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	<p>Two or more functions with the same name but different number of parameters or type.</p> <p>4. Very long functions that can run easily.</p>
<p>Specify the output of the given program?</p> <pre>#include using namespace std; int Add(int X, int Y, int Z) {     return X + Y; } double Add(double X, double Y, double Z) {     return X + Y; } int main() {     cout &lt;&lt; Add(5, 6);     cout &lt;&lt; Add(5.5, 6.6);     return 0; }</pre>	<p>1. 11 12.1 2. 12.1 11 3. 11 12 4. Compile time error</p>
<p>What is the output of the following program?</p> <pre>#include using namespace std; int operate (int a, int b) {     return (a * b); } float operate (float a, float b) {     return (a / b); } int main() {     int x = 5, y = 2;     float n = 5.0, m = 2.0;     cout &lt;&lt; operate(x, y) &lt;&lt; "\t";     cout &lt;&lt; operate (n, m);     return 0; }</pre>	<p>1. 10.0 5.0 2. 5.0 2.5 3. 10.0 5 4. 10 2.5</p>
<p>WHAT WILL BE THE OUTPUT</p> <pre>#include &lt;iostream&gt; using namespace std;  class GFG { public:     GFG()     {         cout &lt;&lt; "Hi from GFG. ";     } } g; int main() {     cout &lt;&lt; "You are in Main.";     return 0; }</pre>	<p>1. Hi from GFG 2. You are in Main 3. You are in Main. Hi from GFG. 4. Hi from GFG. You are in Main.</p>
<p>WHICH IS THE CORRECT FORM OF DEFAULT CONSTRUCTOR FOR FOLLOWING CLASS?</p> <pre>#include &lt;iostream&gt; using namespace std; class sample { private:</pre>	<p>1. onlineexam. void sample(){} 2. onlineexam. void sample(){ x=0; y=0;} 3. onlineexam. void sample(int a,int b){ x=a; y=b;} 4.</p>

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<pre>int x,y; };</pre>	<p><b>Both 1 and 2</b></p>
<p>Which of the following is true about the following program</p> <pre>#include &lt;iostream&gt; class Test { public: int i; void get(); }; void Test::get() { std::cout &lt;&lt; "Enter the value of i: "; std::cin &gt;&gt; i; } Test t; // Global object int main() { Test t; // local object t.get(); std::cout &lt;&lt; "value of i in local t: "&lt;&lt;t.i&lt;&lt;'\n'; ::t.get(); std::cout &lt;&lt; "value of i in global t: "&lt;&lt;::t.i&lt;&lt;'\n'; return 0; }</pre>	<ol style="list-style-type: none"> <li>1. Compiler Error: Cannot have two objects with same class name</li> <li>2. Compiler Error in Line "::t.get();" "</li> <li>3. Runtime Error</li> <li>4. <b>Compile and run succesfully</b></li> </ol>
<p><math>(x*y)*z=x*(y*z)</math> is the</p>	<ol style="list-style-type: none"> <li>1. commutative property</li> <li>2. inverse property</li> <li>3. <b>associative property</b></li> <li>4. Identity element</li> </ol>
<p>-----is a property that describes various characteristics of an entity.</p>	<ol style="list-style-type: none"> <li>1. ER Diagram</li> <li>2. Column</li> <li>3. Relationship</li> <li>4. <b>Attribute</b></li> </ol>
<p>-----engine executes low level instructions generated by the DML compiler.</p>	<ol style="list-style-type: none"> <li>1. DDL Analyzer</li> <li>2. <b>Query Interpreter</b></li> <li>3. Database Engine</li> <li>4. None of the these</li> </ol>
<p>..... is a condition specified on a database schema and restricts the data that can be stored in an instance of the database.</p>	<ol style="list-style-type: none"> <li>1. Key Constraint</li> <li>2. Check Constraint</li> <li>3. Foreign key constraint</li> <li>4. <b>Integrity constraint</b></li> </ol>
<p>..... is a specific concurrency problem wherein two transactions depend on each other for something.</p>	<ol style="list-style-type: none"> <li>1. phantom read problem</li> <li>2.</li> </ol>

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	<p>transaction read problem</p> <p>3. <b>deadlock</b></p> <p>4. locking</p>
..... helps solve concurrency problem.	<p>1. <b>locking</b></p> <p>2. transaction monitor</p> <p>3. transaction serializability</p> <p>4. two phase commit</p>
..... protocol grantees that a set of transactions becomes serialisable.	<p>1. <b>two phase locking</b></p> <p>2. two phase commit</p> <p>3. transaction locking</p> <p>4. checkpoints</p>
..... would only be an effective choice in a environment in which many disk errors occur.	<p>1. RAID Level 0</p> <p>2. RAID Level 1</p> <p>3. <b>RAID Level 2</b></p> <p>4. RAID Level 3</p>
..... is not a true member of RAID family, because it does not include redundancy to improve performace.	<p>1. <b>RAID Level 0</b></p> <p>2. RAID Level 1</p> <p>3. RAID Level 2</p> <p>4. RAID Level 3</p>
..... PROVIDES THE FLEXIBILITY OF USING DIFFERENT FORMAT OF DATA AT RUN TIME DEPENDING UPON THE SITUATION.	<p>1. <b>DYNAMIC INITIALIZATION</b></p> <p>2. RUN TIME INITIALIZATION</p> <p>3. STATIC INITIALIZATION</p> <p>4. VARIABLE INITIALIZATION</p>
..... specifies the actions needed to remove the drawbacks in the current design of database.	<p>1. 1 NF</p> <p>2. 2 NF</p> <p>3. 3 NF</p> <p>4. <b>Normalform</b></p>
3428 is the decimal value for which of the following binary-coded decimal (BCD) groupings?	<p>1. 1101000100100000</p> <p>2. <b>11010000101000</b></p>

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	3. 011010010000010 4. 110100001101010
4 to 1 mux would have	1. 2inputs 2. 3inputs 3. <b>4inputs</b> 4. 5inputs
4 to 1 mux would have	1. <b>1 output</b> 2. 3 outputs 3. 4 outputs 4. 2 ouput
message passing system allows processes to :	1. <b>communicate with one another without resorting to shared data.</b> 2.Communicate with one another by resorting to shared data. 3.Share Data 4.Name the recipient or sender of the message
If a higher priority process arrives and wants service, the memory manager can swap out the lower priority process to execute the higher priority process. When the higher priority process finishes, the lower priority process is swapped back in and continues execution. This variant of swapping is sometimes called :	1. priority swapping 2. pull out, push in 3. <b>roll out, roll in</b> 4. None of these
Run time mapping from virtual to physical address is done by	1. <b>memory management unit</b> 2. CPU 3. PCI 4. none of the mentioned
A binary semaphore is a semaphore with integer values :	1. <b>1 &amp; 0</b> 2. -1 & 1 3. 0 & -1 4. 0.5
A process can be	1. single threaded 2. multithreaded 3.

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	<p>both (a) and (b)</p> <p>4. none of the mentioned</p>
A set of processes is deadlock if	<p>1. each process is blocked and will remain so forever</p> <p>2. each process is terminated</p> <p>3. all processes are trying to kill each other</p> <p>4. none of the mentioned</p>
In Unix, Which system call creates the new process?	<p>1. fork</p> <p>2. create</p> <p>3. new</p> <p>4. none of the mentioned</p>
Messages sent by a process :	<p>1. have to be of a fixed size</p> <p>2. have to be a variable size</p> <p>3. can be fixed or variable sized</p> <p>4. None of these</p>
semaphore :	<p>1. is a binary mutex</p> <p>2. must be accessed from only one process</p> <p>3. can be accessed from multiple processes</p> <p>4. None of these</p>
Semaphore is a/an _____ to solve the critical section problem.	<p>1. hardware for a system</p> <p>2. special program for a system</p> <p>3. integer variable</p> <p>4. None of these</p>

Termination of the process terminates

1.  
first thread of the process
  2.  
first two threads of the process
  3.  
all threads within the process
  4.  
no thread within the process
1. The link between two processes P and Q to send and receive messages is called :
1.  
communication link
  2.  
message-passing link
  - 3.

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synchronization link

4.

All of these

1. The page table contains

1.

base address of each page in physical memory

2.

page offset

3.

page size

4.

none of the mentioned

1. The two kinds of semaphores are :

1.

Mutex & Duplex

2.

Binary & Counting

3.

Counting & Signal

4.

decimal & Integer

1. When high priority task is indirectly preempted by medium priority task effectively inverting the relative priority of the two tasks, the scenario is called

1.

priority inversion

2.

priority removal

3.

priority exchange

4.

priority modification

1. Which one of the following is not a valid state of a thread?

1.

running

2.

parsing

3.

ready

4.

blocked

1. Which one of the following is the address generated by CPU?

1.

physical address

2.

absolute address

3.

logical address

4.

none of the mentioned

1. A monitor is a module that encapsulates

1.

shared data structures

2.

procedures that operate on shared data structure

3.

synchronization between concurrent procedure invocation

4.

all of the mentioned

1. A mutex is :

1.

is a binary mutex

2.

must be accessed from only one process

3.

can be accessed from multiple processes

4.

None of these

1. A process can be terminated due to

1.

normal exit

2.fatal error

3.killed by another process

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4.all of the mentioned

<p>n IPC facility provides atleast two operations :</p>	<ol style="list-style-type: none"> <li>1.write and delete message</li> <li>2.delete and receive message only</li> <li>3.send and write message only</li> <li>4. send and receive message</li> </ol>
<p>If one thread opens a file with read privileges then</p>	<ol style="list-style-type: none"> <li>1. other threads in the another process can also read from that file</li> <li>2. other threads in the same process can also read from that file</li> <li>3. any other thread can not read from that file</li> <li>4. all of the mentioned</li> </ol>
<p>In indirect communication between processes P and Q :</p>	<ol style="list-style-type: none"> <li>1. there is another process R to handle and pass on the messages between P and Q</li> <li>2. there is another machine between the two processes to help communication</li> <li>3. there is a mailbox to help communication between P and Q</li> <li>4. None of these</li> </ol>
<p>Process synchronization can be done on</p>	<ol style="list-style-type: none"> <li>1. hardware level</li> <li>2. software level</li> <li>3. both (a) and (b)</li> <li>4. none of the mentioned</li> </ol>
<p>Program always deals with</p>	<ol style="list-style-type: none"> <li>1. logical address</li> <li>2. absolute address</li> <li>3. physical address</li> <li>4. relative address</li> </ol>
<p>The two atomic operations permissible on semaphores are :</p>	<ol style="list-style-type: none"> <li>1. wait</li> <li>2. Stop &amp; Signal</li> <li>3. Both (a) &amp; (b)</li> <li>4. Wait &amp; Hold</li> </ol>
<p>What is interprocess communication?</p>	<ol style="list-style-type: none"> <li>1. communication within the process</li> <li>2. communication between two process</li> <li>3. communication between two threads of same process</li> <li>4. none of the mentioned</li> </ol>



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What is the ready state of a process?	<ol style="list-style-type: none"> <li>when process is scheduled to run after some execution</li> <li>when process is unable to run until some task has been completed</li> <li>when process is using the CPU</li> <li>none of the mentioned</li> </ol>
<pre>if (fork() == 0) { a = a + 5; printf("%d,%d\n", a, &amp;a); } else { a = a - 5; printf("%d, %d\n", a, &amp;a); }</pre> <p>Let u, v be the values printed by the parent process, and x, y be the values printed by the child process. Which one of the following is TRUE?</p>	<ol style="list-style-type: none"> <li><math>u = x + 10</math> and <math>v = y</math></li> <li><math>u = x + 10</math> and <math>v \neq y</math></li> <li><math>u + 10 = x</math> and <math>v = y</math></li> <li><math>u + 10 = x</math> and <math>v \neq y</math></li> </ol>
The purpose of a TLB is	<ol style="list-style-type: none"> <li>To cache page translation information</li> <li>To cache frequently used data</li> <li>To hold register values while a process is waiting to be run</li> <li>To hold the start and length of the page table</li> </ol>

The OS of a computer may periodically collect all the free memory space to form contiguous block of free space. This is called	<ol style="list-style-type: none"> <li>Concatenation</li> <li>Garbage collection</li> <li>Collision</li> <li>Dynamic Memory Allocation</li> </ol>
Which of the following is not usually stored in a two-level page table?	<ol style="list-style-type: none"> <li>Virtual page number</li> <li>Physical page number</li> <li>Dirty bit</li> <li>Reference bit</li> </ol>
Null character needs a space of ____ .	<ol style="list-style-type: none"> <li>Zero bytes.</li> <li>One byte.</li> <li>Three bytes.</li> <li>Four bytes.</li> </ol>
The number of structures that can be declared in a single statement is ____ ?	<ol style="list-style-type: none"> <li>One</li> <li>Two</li> <li>Three</li> <li>Unlimited</li> </ol>
What does C++ append to the end of a string literal constant?	<ol style="list-style-type: none"> <li>A space.</li> </ol>

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	<ul style="list-style-type: none"><li>2. A number sign (#).</li><li>3. An asterisk (*).</li><li>4. A null character.</li></ul>
Which other keywords are also used to declare the class other than class?	<ul style="list-style-type: none"><li>1. struct</li><li>2. union</li><li>3. object</li><li>4. both (a) and (b)</li></ul>
<p>What is the Output of this Program?</p> <pre>#include &lt;iostream &gt;  using namespace std;  class sample {     private:         int a, b;     public:         void test()         {             a = 100;             b = 200;         }          friend int compute(sample e1); };  int compute(sample e1) {     return int(e1.a + e1.b) - 5; }  int main() {     sample e;     e.test();     cout &lt;&lt; compute(e);     return 0; }</pre>	<ul style="list-style-type: none"><li>1. 295</li><li>2. 100</li><li>3. 300</li><li>4. 200</li></ul>
Which of the following is false with respect to inheritance?	<ul style="list-style-type: none"><li>1.</li></ul>

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	<p>When a base class is privately inherited,onlineexam.members of the base class become private members of the derived class 31%</p> <p>2. When a base class is onlineexam.y inherited,onlineexam.members of the base class becomes onlineexam.members of derived class 8%</p> <p>3. When a base class is privately inherited, a private member of base class becomes private member of derived class 31%</p> <p>4. When a base class is onlineexam.y inherited protected members of base class becomes protected members of derived class 31%</p>
Which feature allows you to create a Derived class that inherits properties from more than one Base class?	<p>1. <b>Multilevel Inheritance.</b></p> <p>2. Multiple Inheritance.</p> <p>3. Hybrid Inheritance.</p> <p>4. Hierarchical Inheritance.</p>
A CONSTRUCTOR IS CALLED WHENEVER	<p>1. OBJECT IS DECLARED</p> <p>2. OBJECT IS USED</p> <p>3. <b>CLASS IS DECLARED</b></p> <p>4. CLASS IS USED</p>

Assuming that Rectangle is a class name, the statement Rectangle *BoxPtr;	<p>1. <b>Declares an object of class Rectangle</b></p> <p>2. Assigns the value of *BoxPtr to the object Rectangle</p> <p>3. Declares a Rectangle pointer object called BoxPtr</p> <p>4. Is illegal in C++</p>
CONSTRUCTORS ARE NORMALLY USED TO _____ AND TO ALLOCATE MEMORY.	<p>1. <b>DEFINE VARIABLES</b></p> <p>2. ALLOCATE VARIABLES</p> <p>3. INITIALIZE VARIABLES</p> <p>4. INITIALIZE OBJECT</p>
COPY CONSTRUCTOR MUST RECEIVE ITS ARGUMENTS BY _____	<p>1. EITHER PASS-BY-VALUE OR PASS-BY-REFERENCE</p> <p>2. ONLY PASS-BY-VALUE</p> <p>3. <b>ONLY PASS-BY-REFERENCE</b></p> <p>4. ONLY PASS BY ADDRESS</p>
The process of object-oriented analysis can be viewed as the following steps	<p>1. Define data members and member functions, then assign a class name</p> <p>2.</p>

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	<p>Declare private and onlineexam.variables, prototype functions, then write code</p> <p>3. Write the main() function, then determine which classes are needed</p> <p>4. Identify objects, then define objects' attributes, behaviors, and relationships</p>
WHAT VALUE SHOULD RETURN A DESTRUCTOR	<p>1. A POINTER TO THE CLASS</p> <p>2. AN OBJECT OF THE CLASS</p> <p>3. A STATUS CODE INDICATING WHETHER THE CLASS IS DESTROYED PROPERLY</p> <p>4. DESTRUCOTRS DO NOT RETURN VALUE</p>
WHENEVER CONST OBJECTS TRY TO INVOKE NON-CONST MEMBER FUNCTIONS, THE COMPILER .....	<p>1. RETURN ZERO VALUE</p> <p>2. RETURN NULL</p> <p>3. GENERATE ERROR</p> <p>4. RETURN NO VALUE</p>
Which of the following is true?	<p>1. All objects of a class share all data members of class</p> <p>2. Objects of a class do not share non-static members. Every object has its own copy.</p> <p>3. Objects of a class do not share codes of non-static methods, they have their own copy</p> <p>4. None of the above</p>
Which of the following permits function overloading on c++?	<p>1. Type</p> <p>2. No. of Arguments</p> <p>3. Type of arguments</p> <p>4. All the above</p>
Let A and B be two events with $P(A) = 0.25$ and $P(B) = 0.5$ . The probability of both occurring together is $0.14$ . Then the probability of both A and B not happening is	<p>1. 0.39</p> <p>2. 0.25</p> <p>3. 0.11</p> <p>4. 0.61</p>
Mean and variance of a binomial distribution are 8 and 4, respectively. Then, $P(X = 1)$ is equal to	<p>1. <math>\frac{1}{2^{12}}</math></p> <p>2. <math>\frac{1}{2^4}</math></p>

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	<p>3. <math>\frac{1}{2^6}</math></p> <p>4. <math>\frac{1}{2^8}</math></p>
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The average time required to reach a storage location in memory and obtain its contents is called the	<p>1. seek time</p> <p>2. turnaround time</p> <p>3. access time</p> <p>4. transfer time</p>
Dynamic loading is :	<p>1. <b>loading multiple routines dynamically</b></p> <p>2. <b>loading a routine only when it is called</b></p> <p>3. <b>loading multiple routines randomly</b></p> <p>4. <b>None of these</b></p>
___ is not Types of update anomalies	<p>1. Insertion</p> <p>2. Deletion</p> <p>3. Modification</p> <p>4. Alteration</p>
___ means that the data used during the execution of a transaction cannot be used by a second transaction until the first one is completed.	<p>1. Consistency</p> <p>2. Atomicity</p> <p>3. Durability</p> <p>4. Isolation</p>
___ is the concept in which a process is copied into main memory from the secondary memory according to the requirement.	<p>1. Paging</p> <p>2. Demand paging</p> <p>3. Segmentation</p> <p>4. Swapping</p>
___ controller sends the command placed into it, via messages to the ___ controller.	<p>1. Host, host</p> <p>2. Disk, disk</p> <p>3. Host, disk</p> <p>4. Disk, host</p>

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_____ attributes can have more than one value.	<ol style="list-style-type: none"> <li>1. Composite</li> <li>2. simple</li> <li>3. Multi-valued</li> <li>4. Single valued</li> </ol>
_____ specifies the maximum number of relationship instances that an entity can participate.	<ol style="list-style-type: none"> <li>1. Range</li> <li>2. Domain</li> <li>3. Cardinality</li> <li>4. Ceiling</li> </ol>
_____ specifies the set of values that can be assigned to the attribute.	<ol style="list-style-type: none"> <li>1. Block</li> <li>2. Relation</li> <li>3. Structure</li> <li>4. Domain</li> </ol>
_____ attribute values are used to identify each entity uniquely.	<ol style="list-style-type: none"> <li>1. Complex</li> <li>2. Unique</li> <li>3. Characters</li> <li>4. Key</li> </ol>

  

_____ is the basic object of ER model which is a thing in real world.	<ol style="list-style-type: none"> <li>1. Relation</li> <li>2. Domain</li> <li>3. Attribute</li> <li>4. Entity</li> </ol>
_____ is generally faster than _____ and _____.	<ol style="list-style-type: none"> <li>1. first fit, best fit, worst fit</li> <li>2. best fit, first fit, worst fit</li> <li>3. worst fit, best fit, first fit</li> <li>4. None of these</li> </ol>
_____ states that only valid data will be written to the database.	<ol style="list-style-type: none"> <li>1. Consistency</li> <li>2. Atomicity</li> <li>3. Durability</li> <li>4. Isolation</li> </ol>
_____ USED TO MAKE A COPY OF ONE CLASS OBJECT FROM ANOTHER CLASS OBJECT OF THE SAME CLASS TYPE.	<ol style="list-style-type: none"> <li>1. CONSTRUCTOR</li> </ol>

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	<ol style="list-style-type: none"> <li>2. COPY CONSTRUCTOR</li> <li>3. DESTRUCTOR</li> <li>4. DEFAULT DESTRUCTOR</li> </ol>
_____ may take place only when there is some minimum amount(or) no space left in free storage list.	<ol style="list-style-type: none"> <li>1. Memory management</li> <li>2. Garbage collection</li> <li>3. Recycle bin</li> <li>4. Storage management</li> </ol>
_____ refers to a linear collection of data items.	<ol style="list-style-type: none"> <li>1. List</li> <li>2. Tree</li> <li>3. Graph</li> <li>4. Edge</li> </ol>
_____ is a set of permitted value for each attribute of a relation	<ol style="list-style-type: none"> <li>1. Domain</li> <li>2. Relation</li> <li>3. Set</li> <li>4. Schema</li> </ol>
_____ is very useful in situation when data need to stored and then retrieved in reverse order.	<ol style="list-style-type: none"> <li>1. Stack</li> <li>2. Queue</li> <li>3. List</li> <li>4. Linked List</li> </ol>
_____ will retrieve the top of the element from the stack.	<ol style="list-style-type: none"> <li>1. Stack[top]</li> <li>2. stack[0]</li> <li>3. List[top]</li> <li>4. Linked list</li> </ol>
A 32X1 Multiplexer has	<ol style="list-style-type: none"> <li>1. 2 select lines</li> <li>2. 3 select lines</li> <li>3. 4 select lines</li> <li>4. 5 select lines</li> </ol>
A _____ indicates the end of the list.	<ol style="list-style-type: none"> <li>1. Guard</li> <li>2. Sentinel</li> <li>3. End pointer</li> <li>4.</li> </ol>

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	Last pointer
A _____ is a linear list in which insertions and deletions are made to from either end of the structure	<ol style="list-style-type: none"> <li>1. circular queue</li> <li>2. random of queue</li> <li>3. priority queue</li> <li>4. double ended queue</li> </ol>
A base class will offer	<ol style="list-style-type: none"> <li>1. offer more specific objects than its derived classes</li> <li>2. correspond to something in the rest world</li> <li>3. behave badly when the chops are down</li> <li>4. be a generalized version of its derived classes</li> </ol>
A binary parallel adder produces arithmetic sum in	<ol style="list-style-type: none"> <li>1. serial</li> <li>2. parallel</li> <li>3. sequence</li> <li>4. both a and b</li> </ol>
A binary search tree whose left subtree and right subtree differ in height by atmost 1 is called __	<ol style="list-style-type: none"> <li>1. Lemma Tree</li> <li>2. Redblack Tree</li> <li>3. AVL Tree</li> <li>4. Balanced Binary Tree</li> </ol>
A binary search tree whose left subtree and rightsubtree differ in hight by at most 1 unit is called	<ol style="list-style-type: none"> <li>1. Red Black Tree</li> <li>2. Lemma Tree</li> <li>3. AVL Tree</li> <li>4. Balanced Binary Tree</li> </ol>
A binary tree can be converted into its mirror image by traversing in ____	<ol style="list-style-type: none"> <li>1. Inorder</li> <li>2. Preorder</li> <li>3. Postorder</li> <li>4. Laplace transform</li> </ol>
A certain 5-bit self-complementary code is used to represent the 10 decimal digits 0 through 9. Given that $(246)_{10}$ is represented as 00010 00100 00110 in this code, what is the representation for $(375)_{10}$ ?	<ol style="list-style-type: none"> <li>1. 00110 00100 00010</li> <li>2. 00011 00111 00101</li> <li>3. 11101 11011 11001</li> <li>4. 11001 11101 11011</li> </ol>



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A circuit that converts n inputs to $2^n$ outputs is called	<ol style="list-style-type: none"> <li>1. encoder</li> <li>2. decoder</li> <li>3. comparator</li> <li>4. carry look ahead</li> </ol>
A CLASS CAN HAVE _____	<ol style="list-style-type: none"> <li>1. ALL CONSTRUCTORS THAT ARE NEEDED</li> <li>2. ONLY THE DEFAULT CONSTRUCTOR</li> <li>3. A DESTRUCTOR FOR EACH CONSTRUCTOR</li> <li>4. ALL THE PREVIOUS ANSWERS ARE INCORRECT</li> </ol>
A class can inherit properties from more than one class which is known as .....inheritance.	<ol style="list-style-type: none"> <li>1. single</li> <li>2. multiple</li> <li>3. multilevel</li> <li>4. hierarchical</li> </ol>
A correct output is achieved from a master-slave J-K flip-flop only if its inputs are stable while the:	<ol style="list-style-type: none"> <li>1. clock is LOW</li> <li>2. slave is transferring</li> <li>3. flip-flop is reset</li> <li>4. clock is HIGH</li> </ol>
A CPU generates 32-bit virtual addresses. The page size is 4 KB. The processor has a translation look-aside buffer (TLB) which can hold a total of 128 page table entries and is 4-way set associative. The minimum size of the TLB tag is:	<ol style="list-style-type: none"> <li>1. 11 bits</li> <li>2. 13 bits</li> <li>3. 15 bits</li> <li>4. 20 bits</li> </ol>
A data dictionary is a special file that contains	<ol style="list-style-type: none"> <li>1. names of all fields in all files</li> <li>2. data types of all fields in all files</li> <li>3. width of all fields in all files</li> <li>4. all of the above</li> </ol>
A data structure where elements can be added or removed at either end but not in the middle is called	<ol style="list-style-type: none"> <li>1. linked lists</li> <li>2. stacks</li> <li>3. queues</li> <li>4. dequeue</li> </ol>

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A Database Management System (DBMS) is	<ol style="list-style-type: none"> <li>1. Collection of interrelated data</li> <li>2. Collection of programs to access data</li> <li>3. Collection of data describing one particular enterprise</li> <li>4. All of the above</li> </ol>
A DBMS uses a transaction ____ to keep track of all transactions that update the database	<ol style="list-style-type: none"> <li>1. log</li> <li>2. table</li> <li>3. block</li> <li>4. statement</li> </ol>
A decimal 11 in BCD is _____.	<ol style="list-style-type: none"> <li>1. 00001011</li> <li>2. 00001100</li> <li>3. 00010001</li> <li>4. 00010010</li> </ol>
A derived class with only one base class is called ..... inheritance.	<ol style="list-style-type: none"> <li>1. single</li> <li>2. multiple</li> <li>3. multilevel</li> <li>4. hierarchical</li> </ol>
A device which converts decimal number into BCD form is called	<ol style="list-style-type: none"> <li>1. encoder</li> <li>2. decoder</li> <li>3. code converter</li> <li>4. multiplexer</li> </ol>

A floppy disk is designed to rotate _____ as compared to a hard disk drive.	<ol style="list-style-type: none"> <li>1. Faster</li> <li>2. Slower</li> <li>3. At the same speed</li> <li>4. None of these</li> </ol>
A friend function to a class, C cannot access	<ol style="list-style-type: none"> <li>1. private data members and member functions.</li> <li>2. onlineexam.data members and member functions.</li> <li>3. protected data members and member functions.</li> <li>4. the data members of the derived class of C.</li> </ol>

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A function can be declared as friend maximum only in _____classes.	<ol style="list-style-type: none"> <li>1. n number of classes</li> <li>2. 2</li> <li>3. 3</li> <li>4. None</li> </ol>
A J-K flip-flop is in a "no change" condition when _____.	<ol style="list-style-type: none"> <li>1. J = 1, K = 1</li> <li>2. J = 1, K = 0</li> <li>3. J = 0, K = 1</li> <li>4. J = 0, K = 0</li> </ol>
A linear list in which the last node points to the first node is _____	<ol style="list-style-type: none"> <li>1. singly linked list</li> <li>2. doubly linked list</li> <li>3. arrays</li> <li>4. none of the above</li> </ol>
A linear list in which the pointer points only to the successive node is _____	<ol style="list-style-type: none"> <li>1. singly linked list</li> <li>2. circular linked list</li> <li>3. doubly linked list</li> <li>4. none of the above</li> </ol>
A logical schema is-----	<ol style="list-style-type: none"> <li>1. is the entire database</li> <li>2. is a standard way of organizing information into accessible parts.</li> <li>3. Describes how data is actually stored on disk.</li> <li>4. All of the above</li> </ol>
A measure of linear association of a variable say, $X_1$ with number of other variables $X_2, X_3, \dots X_K$ is known as	<ol style="list-style-type: none"> <li>1. Partial correlation</li> <li>2. Multiple correlation</li> <li>3. Simple Correlation</li> <li>4. Auto correlation</li> </ol>
A memory buffer used to accommodate a speed differential is called	<ol style="list-style-type: none"> <li>1. <b>stack pointer</b></li> <li>2. <b>cache</b></li> <li>3. <b>accumulator</b></li> <li>4. <b>disk buffer</b></li> </ol>
A memory buffer used to accommodate a speed differential is called	<ol style="list-style-type: none"> <li>1. <b>stack pointer</b></li> <li>2. <b>cache</b></li> </ol>

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	3. <b>accumulator</b> 4. <b>disk buffer</b>
A memory buffer used to accommodate a speed differential is called	1. <b>stack pointer</b> 2. <b>cache</b> 3. <b>accumulator</b> 4. <b>disk buffer</b>
A memory buffer used to accommodate a speed differential is called	1. stack pointer 2. cache 3. accumulator 4. disk buffer
A monitor is a module that encapsulates	1. <b>shared data structures</b> 2. <b>procedures that operate on shared data structure</b> 3. <b>synchronization between concurrent procedure invocation</b> 4. <b>all of the mentioned</b>
A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because :	1. it reduces the memory access time to read or write a memory location 2. it helps to reduce the size of page table needed to implement the virtual address space of a process 3. it is required by the translation look aside buffer 4. it helps to reduce the number of page faults in page replacement algorithms
A multiplexer is also called as a	1. Coder 2. parallel adder 3. Data selector 4. NOR gate
A pointer in which a pointer variable contains the address of a variable that has already been allocated	1. Null pointer 2. Generic pointer 3. Dangling pointer 4. wild pointer
A positive edge-triggered D flip-flop will store a 1 when _____.	1. the D input is HIGH and the clock transitions from HIGH to LOW

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	<ol style="list-style-type: none"> <li>the D input is HIGH and the clock transitions from LOW to HIGH</li> <li>the D input is HIGH and the clock is LOW</li> <li>the D input is HIGH and the clock is HIGH</li> </ol>
<p>A positive edge-triggered J-K flip-flop is used to produce a two-phase clock. However, when the circuit is operated it produces erratic results. Close examination with a scope reveals the presence of glitches. What causes the glitches, and how might the problem be corrected?</p>	<ol style="list-style-type: none"> <li>The PRESET and CLEAR terminals may have been left floating; they should be properly terminated if not being used.</li> <li>The problem is caused by a race condition between the J and K inputs; an inverter should be inserted in one of the terminals to correct the problem.</li> <li>A race condition exists between the Q and Q outputs to the AND gate; the AND gate should be replaced with a NAND gate.</li> <li>A race condition exists between the clock and the outputs of the flip-flop feeding the AND gate; replace the flip-flop with a negative edge-triggered J-K Flip-Flop.</li> </ol>
<p>A process is thrashing if</p>	<ol style="list-style-type: none"> <li>it is spending more time paging than executing</li> <li>it is spending less time paging than executing</li> <li>page fault occurs</li> <li>swapping cannot take place</li> </ol>
<p>A queue is a,</p>	<ol style="list-style-type: none"> <li>FIFO (First In First Out) list.</li> <li>LIFO (Last In First Out) list.</li> <li>Ordered array.</li> <li>Linear tree.</li> </ol>

  

<p>A relation is in this form if it is in BCNF and has no multivalued dependencies:</p>	<ol style="list-style-type: none"> <li>second normal form.</li> <li>third normal for</li> <li>fourth normal form.</li> <li>domain/key normal form.</li> </ol>
<p>A relational database consists of a collection of</p>	<ol style="list-style-type: none"> <li>Tables</li> <li>Fields</li> <li>Records</li> <li>Keys</li> </ol>
<p>A report generator is used to</p>	<ol style="list-style-type: none"> <li>update files.</li> <li>print files on paper.</li> <li>data entry</li> <li>delete files</li> </ol>

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<p>A sample of 12 specimen taken from a normal population is expected to have a mean 50 mg/cc. The sample has a mean of 64 mg/cc with a variance of 25. Which of the following test statistic can be used to test <math>H_0: \mu = 50</math> vs <math>H_0: \mu \neq 50</math></p>	<ol style="list-style-type: none"> <li>1. Z - test</li> <li>2. <math>\chi^2</math> - test</li> <li>3. t - test</li> <li>4. F - test</li> </ol>
<p>A scheduling algorithm can use either _____ priority or _____ priority.</p>	<ol style="list-style-type: none"> <li>1. Static, still</li> <li>2. Static, dynamic</li> <li>3. Live, dead</li> <li>4. None of these</li> </ol>
<p>A semaphore is a shared integer variable</p>	<ol style="list-style-type: none"> <li>1. that can not drop below zero</li> <li>2. that can not be more than zero</li> <li>3. that can not drop below one</li> <li>4. that can not be more than one</li> </ol>
<p>A Standard logic gate is a typical example of</p>	<ol style="list-style-type: none"> <li>1. MSI Circuits</li> <li>2. SSI Circuits</li> <li>3. LSI Circuits</li> <li>4. VLSI Circuits</li> </ol>
<p>A system program that combines the separately compiled modules of a program into a form suitable for execution</p>	<ol style="list-style-type: none"> <li>1. assembler</li> <li>2. linking loader</li> <li>3. cross compiler</li> <li>4. load and go</li> </ol>
<p>A system uses FIFO policy for page replacement. It has 4 page frames with no pages loaded to begin with. The system first accesses 100 distinct pages in some order and then accesses the same 100 pages but now in the reverse order. How many page faults will occur?</p>	<ol style="list-style-type: none"> <li>1. 196</li> <li>2. 192</li> <li>3. 197</li> <li>4. 195</li> </ol>
<p>A table can have only one</p>	<ol style="list-style-type: none"> <li>1. Secondary key</li> <li>2. Alternate key</li> <li>3. Unique key</li> <li>4. Primary key</li> </ol>

# Comprehensive Question Preview

A table is in the ..... if only candidate keys are the determinants.	<ol style="list-style-type: none"> <li>functional dependency</li> <li>transitive dependency</li> <li>NF</li> <li>BCNF</li> </ol>
A table on the many side of a one to many or many to many relationship must:	<ol style="list-style-type: none"> <li>Be in Second Normal Form (2NF)</li> <li>Be in Third Normal Form (3NF)</li> <li>Have a single attribute key</li> <li>Have a composite key</li> </ol>
A table on the many side of a one to many or many to many relationship must:	<ol style="list-style-type: none"> <li>Be in Second Normal Form (2NF)</li> <li>Be in Third Normal Form (3NF)</li> <li>Have a single attribute key</li> <li>Have a composite key</li> </ol>
A three digit decimal number requires _____ for representation in the conventional BCD format.	<ol style="list-style-type: none"> <li>1.3 bits</li> <li>2.6 bits</li> <li>3.12 bits</li> <li>4.24 bits</li> </ol>
A transaction processing system is also called as .....	<ol style="list-style-type: none"> <li>processing monitor</li> <li>transaction monitor</li> <li>TP monitor</li> <li>monitor</li> </ol>
A transaction processing system is also called as .....	<ol style="list-style-type: none"> <li>processing monitor</li> <li>transaction monitor</li> <li>TP monitor</li> <li>monitor</li> </ol>
A variant of the linked list in which none of the node contains NULL pointer is?	<ol style="list-style-type: none"> <li>Singly linked list</li> <li>Doubly linked list</li> <li>Circular linked list</li> <li>None</li> </ol>
A weak entity type always has a _____ participation constraint with respect to its identifying relationships.	<ol style="list-style-type: none"> <li>Partial</li> </ol>

# Comprehensive Question Preview

	2.Total 3.Overlap 4.Disjoint
A weak entity type normally has a _____ key.	1. Partial 2. Total 3. Super 4. Strong
Access time of a binary search tree may go worse in terms of time complexity upto	1. $n^2$ 2. $(n \log n)$ 3. $n$ 4. 1

According to Boolean algebra Involution law $(x')' = ?$ Is equal to	1. $x'$ 2. $x$ 3. 1 4. 0
Addressing structure	1. defines the fundamental method of determining effective operand addresses 2. are variations in the use of fundamental addressing structures, or some associated actions which are related to addressing. 3. performs indicated operations on two fast registers of the machine and leave the result in one of the registers. 4. all of the above
Advantage of a multi-dimension array over pointer array	1. Pre-defined size. 2. Input can be taken from user. 3. Faster Access. 4. All of the mentioned
After the crash of a disk containing the database, which of the following tools will need to be used for recovery?	1. Database backup 2. Log 3. Checkpoint table 4. All of the above
After the nodes are prepared, the distributed transaction is said to be .....	1. in-doubt 2. in-prepared 3.



# Comprehensive Question Preview

	<p>prepared transaction</p> <p>4. in-node</p>
<p>ALLOCATION OF MEMORY TO OBJECTS AT THE TIME OF THEIR CONSTRUCTION IS KNOWN AS ..... OF OBJECTS.</p>	<p>1. RUN TIME CONSTRUCTION</p> <p>2. DYNAMIC CONSTRUCTION</p> <p>3. INITIAL CONSTRUCTION</p> <p>4. STATIC CONSTRUCTION</p>
<p>AN ..... WITH A CONSTRUCTOR OR DESTRUCTOR CANNOT BE USED AS A MEMBER OR A UNION.</p>	<p>1. CLASS</p> <p>2. OBJECT</p> <p>3. FUNCTION</p> <p>4. VARIABLE</p>
<p>An 8x3 encoder has how many output wires</p>	<p>1. 2</p> <p>2. 3</p> <p>3. 8</p> <p>4. 11</p>
<p>An 8x3 encoder has how many output wires</p>	<p>1. 2</p> <p>2. 3</p> <p>3. 8</p> <p>4. 11</p>
<p>An entity set that does not have sufficient attributes to form a primary key is a</p>	<p>1. Strong entity set.</p> <p>2. Weak entity set.</p> <p>3. Simple entity set.</p> <p>4. Primary entity set.</p>

<p>An entity type without a key attribute is called ____ entity type.</p>	<p>1. Null</p> <p>2. weaak</p> <p>3. Strong</p> <p>4. single</p>
<p>An invalid condition in the operation of an active-HIGH input S-R latch occurs when ____.</p>	<p>1. HIGHs are applied simultaneously to both inputs S and R</p> <p>2. LOWs are applied simultaneously to both inputs S and R</p> <p>3.</p>

# Comprehensive Question Preview

	<p>a LOW is applied to the S input while a HIGH is applied to the R input</p> <p>4. a HIGH is applied to the S input while a LOW is applied to the R input</p>
An operator function is created using _____ keyword.	<p>1. iterator</p> <p>2. allocator</p> <p>3. constructor</p> <p>4. operator</p>
Applications of multidimensional array are?	<p>1. Matrix-Multiplication</p> <p>2. Minimum Spanning Tree</p> <p>3. Finding connectivity between nodes</p> <p>4. All of the mentioned</p>
Array is basically	<p>1. Collection of numbers only</p> <p>2. Collection of ascii values only</p> <p>3. Collection of Homogeneous data types</p> <p>4. Collection of Heterogeneous data types</p>
As disks have relatively low transfer rates and relatively high latency rates, disk schedulers must reduce latency times to :	<p>1. Ensure high bandwidth</p> <p>2. Ensure low bandwidth</p> <p>3. Make sure data is transferred</p> <p>4. Reduce data transfer speeds</p>
As the bank audit transaction reads Mary's savings balance, \$100, Mary transfers \$50 to her checking, making it \$250, and the audit transaction completes with the combined value of \$350 in both accounts. This is called:	<p>1. An uncommitted dependency</p> <p>2. An incorrect summary</p> <p>3. A lost update</p> <p>4. A data entry error</p>
<p>Assume that an integer and a pointer each takes 4 bytes. Also, assume that there is no alignment in objects. Predict the output following program.</p> <pre>#include&lt;iostream&gt; using namespace std; class Test {     static int x;     int *ptr;     int y; }; int main() {     Test t;</pre>	<p>1. 12 4</p> <p>2. 12 12</p> <p>3. 8 4</p> <p>4. 8 8</p>

# Comprehensive Question Preview

<pre>cout &lt;&lt; sizeof(t) &lt;&lt; " "; cout &lt;&lt; sizeof(Test *); }</pre>	
<p>Assume that the size of char is 1 byte and negatives are stored in 2's complement form</p> <pre>#include&lt;stdio.h&gt; int main() {     char c = 125;     c = c+10;     printf("%d", c);     return 0; }</pre>	<ol style="list-style-type: none"> <li>135</li> <li>+INF</li> <li>-121</li> <li>-8</li> </ol>
<p>Attribute of a table is refers to as___ in relational model</p>	<ol style="list-style-type: none"> <li>Record</li> <li>Column</li> <li>Tuple</li> <li>Key</li> </ol>

Attributes that are not divisible are called \_\_\_\_\_.

- Composite
- Atomic
- Complex
- Structured

Avoid placing attributes in a base relation whose values may frequently be

- Null
- Multiple
- Single
- Repeated

Avoid relations that contain matching attributes that are not \_\_\_\_ combinations

- foreign key, primary Key
- Null value, primary key
- foreign key, Candidate Key
- Candidate key, primary Key

Backward recovery is which of the following?

- Where the before-images are applied to the database
- Where the after-images are applied to the database
- Where the after-images and before-images are applied to the database
- Switching to an existing copy of the database

BCD to seven segment conversion is a \_\_\_\_\_

- Decoding process
- Encoding process
- Comparing process
- None of the mentioned

Because of virtual memory, the memory can be shared among

-

# Comprehensive Question Preview

processes

2.

threads

3.

instructions

4.

none of the mentioned

Binary code that distinguishes ten elements must contain at least

1.

Two bits

2.

Three bits

3.

Four bits

4.

Five bits

Binary coded decimal is a combination of

1.

Two binary digits

2.

Three binary digits

3.

Four binary digits

4.

None of the Mentioned

Binary search algorithm can not be applied to

1.

sorted linked list

2.

sorted binary trees

3.

sorted linear array

4.

pointer array

Can member functions of one class be friend functions of another class?

1.

Yes

2.

No

3. 4.

Carry out BCD subtraction for  $(68) - (61)$  using 10's complement method.

1.

00000111

2.

01110000

3.

100000111

4.

011111000

Choose most appropriate statement

1.

An abstract base class can have pure virtual destructor

2.

An abstract base class can have only virtual destructor

3.

An abstract base class can have non virtual destructor

4.

An abstract base class cannot have destructor

Choose the most appropriate choice with respect to conceptual design.

1.

Conceptual design is a documentation technique. Once the relation schemes are defined one can draw E-R diagrams from the relation schemes for documentation

2.

Conceptual design needs data volume and processing frequencies to determine the size of the database

3.

Output of any conceptual design is an E-R diagram

4.

Conceptual design involves modeling the data requirements independent of the DBMS, operating system and the hardware.

# Comprehensive Question Preview

Closure of Y is denoted as

1. Y\*
2. Y->X
3. Y+
4. None of the above

Collection of information stored in database at particular instance of time is called as \_\_\_\_\_.

1. Data Structure
2. Database Schema
3. Instance of Database
4. Objects in Database

Comment on the following statement: `int (*A.[7]);`

1. An array a of pointers
2. A pointer a to an array
3. A ragged array
4. None

Comment on the output of this C code?

```
int main()
{
    int a[5] = { 1, 2, 3, 4, 5 };
    int i;
    for (i = 0; i < 5; i++)
        if ((char)a[i] == '5')
            printf("%d\n", a[i]);
        else
            printf("FAIL\n");
}
```

1. The compiler will flag an error
2. Program will compile and print the output 5
3. Program will compile and print the ASCII value of 5
4. Program will compile and print FAIL for 5 times

Commit and rollback are related to .....

1. data integrity
2. data consistency
3. data sharing
4. data security

Consider a directed line(->) from the relationship set advisor to both entity sets instructor and student. This indicates \_\_\_\_\_ cardinality

1. One to many
2. One to one
3. Many to many
4. Many to one

Consider a schema R(A, B, C, D) and functional dependencies A -> B and C -> D. Then the decomposition of R into R1 (A, B) and R2(C, D) is

1. dependency preserving and lossless join
2. lossless join but not dependency preserving
3. dependency preserving but not lossless join
4. not dependency preserving and not lossless join

# Comprehensive Question Preview

Consider a weight balanced tree such that, the number of nodes in the left sub tree is at least half and at most twice the number of nodes in the right sub tree. The maximum possible height (number of nodes on the path from the root to the farthest leaf) of such a tree on  $k$  nodes can be described as

1.  
 $\log_2 n$
2.  
 $\log_{4/3} n$
3.  
 $\log_3 n$
4.  
 $\log_{3/2} n$

Consider an implementation of unsorted doubly linked list. Suppose it has its representation with a head pointer and tail pointer. Given the representation, which of the following operation can be implemented in  $O(1)$  time?

- i) Insertion at the front of the linked list
- ii) Insertion at the end of the linked list
- iii) Deletion of the front node of the linked list
- iv) Deletion of the end node of the linked list

1.  
I and II
2.  
I and III
3.  
I, II and III
4.  
I, II, III and IV

Consider an implementation of unsorted doubly linked list. Suppose it has its representation with a head pointer only. Given the representation, which of the following operation can be implemented in  $O(1)$  time?

- i) Insertion at the front of the linked list
- ii) Insertion at the end of the linked list
- iii) Deletion of the front node of the linked list
- iv) Deletion of the end node of the linked list

1.  
I and II
2.  
I and III
3.  
I, II and III
4.  
I, II, III and IV

Consider an implementation of unsorted singly linked list. Suppose it has its representation with a head pointer only. Given the representation, which of the following operation can be implemented in  $O(1)$  time?

- i) Insertion at the front of the linked list
- ii) Insertion at the end of the linked list
- iii) Deletion of the front node of the linked list
- iv) Deletion of the last node of the linked list

1.  
I and II
2.  
I, II and IV
3.  
I, II and III
4.  
I and III

Consider linked list is used to implement the Stack then which of the following node is considered as Top of the Stack ?

1.  
Any Node
2.  
Last Node
3.  
First Node
4.  
Middle Node

Consider money is transferred from (1) account-A to account-B and (2) account-B to account-A.

Which of the following form a transaction ?

1.  
Only 1
2.  
Only 2
3.  
Both 1 and 2 individually
4.  
Either 1 or 2

# Comprehensive Question Preview

Consider the following combinational function block involving four Boolean variables x, y, a, b where x, a, b are inputs and y is the output.

```
f (x, y, a, b)
{
    if (x is 1) y = a;
    else y = b;
}
```

Which one of the following digital logic blocks is the most suitable for implementing this function?

1.

Full adder

Priority encoder

Multiplexer

Flip-flop

Consider the following definition in c programming language

```
struct node
{
    int data;
    struct node * next;
}
typedef struct node NODE;
NODE *ptr;
```

Which of the following c code is used to create new node?

1.

ptr=(NODE\*)malloc(sizeof(NODE));

2.

ptr=(NODE\*)malloc(NODE);

3.

ptr=(NODE\*)malloc(sizeof(NODE\*));

4.

ptr=(NODE)malloc(sizeof(NODE));

Consider the following linked list and following linked list representation -

10--->12---->15---->25---->30---->36

```
struct node {
    int data;
    struct node *next;
}*start = NULL;
what will be the value of following statement ?
start->next->next->next->data
```

1.

12

2.

30

3.

15

4.

25

Consider the function f defined here:

```
struct item
{
    int data;
    struct item * next;
};
int f (struct item *p)
{
    return((p==NULL) ||((p->next==NULL)||(p->data<=p->next->data) && (p->next)));
}
```

For a given linked list p, the function f returns 1 if and only if

1.

the list is empty or has exactly one element

2.

the element in the list are sorted in non-decreasing order of data value

3.

the element in the list are sorted in non-increasing order of data value

4.

not all element in the list have the same data value

# Comprehensive Question Preview

Consider the Singly linked list having n elements. What will be the time taken to add an node at the end of linked list if Pointer is initially pointing to first node of the list.	<ol style="list-style-type: none"> <li>1. <math>O(1)</math></li> <li>2. <math>O(n-1)</math></li> <li>3. <math>O(n)</math></li> <li>4. <math>O(2n)</math></li> </ol>
Consider the usual algorithm for determining whether a sequence of parentheses is balanced. Suppose that you run the algorithm on a sequence that contains 2 left parentheses and 3 right parentheses (in some order). The maximum number of parentheses that appear on the stack AT ANY ONE TIME during the computation?	<ol style="list-style-type: none"> <li>1. 1</li> <li>2. 2</li> <li>3. 3</li> <li>4. 4 and above</li> </ol>
Consider the usual algorithm for determining whether a sequence of parentheses is balanced. The maximum number of parentheses that appear on the stack AT ANY ONE TIME when the algorithm analyzes: $\{O(O)(O)\}$ are:	<ol style="list-style-type: none"> <li>1. 1</li> <li>2. 2</li> <li>3. 3</li> <li>4. 4 and above</li> </ol>
Consider the virtual page reference string 1, 2, 3, 2, 4, 1, 3, 2, 4, 1. On a demand paged virtual memory system running on a computer system that main memory size of 3 pages frames which are initially empty. Let LRU, FIFO and OPTIMAL denote the number of page faults under the corresponding page replacements policy. Then	<ol style="list-style-type: none"> <li>1. <math>OPTIMAL &lt; LRU &lt; FIFO</math></li> <li>2. <math>OPTIMAL &lt; FIFO &lt; LRU</math></li> <li>3. <math>OPTIMAL = LRU</math></li> <li>4. <math>OPTIMAL = FIFO</math></li> </ol>
const member function does not allow to modify/alter value of any data member of the class.	<ol style="list-style-type: none"> <li>1. False</li> <li>2. True</li> <li>3. None</li> <li>4. Error</li> </ol>
CONSTRUCTORS CANNOT BE INHERITED, THROUGH A DERIVED CLASS CAN CALL THE ..... CONSTRUCTOR.	<ol style="list-style-type: none"> <li>1. BASE CLASS</li> <li>2. DERIVED CLASS</li> <li>3. VOID CLASS</li> <li>4. DEFAULT CLASS</li> </ol>
Convert binary number into gray code: 100101	<ol style="list-style-type: none"> <li>1. 101101</li> <li>2. 001110</li> <li>3. 110111</li> <li>4. 111001</li> </ol>
Convert the binary number 1100 to Gray code.	<ol style="list-style-type: none"> <li>1. 0011</li> <li>2. 1010</li> </ol>



# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>1100</li> <li>1001</li> </ol>
Convert the following decimal number to BCD. 469	<ol style="list-style-type: none"> <li>100101101000</li> <li>010001101001</li> <li>100001101001</li> <li>100101100100</li> </ol>
Convert the function $F(x,y,z) = \prod (1,3,7)$ to other canonical form	<ol style="list-style-type: none"> <li><math>F(x,y,z) = \prod (0,2,4,5,6)</math></li> <li><math>F(x,y,z) = \Sigma (0,2,4,5,6)</math></li> <li><math>F(x,y,z) = \prod (0,2,4,5,6,8)</math></li> <li><math>F(x,y,z) = \Sigma (0,2,4,5,6,8)</math></li> </ol>
Convert the Gray code 1011 to binary.	<ol style="list-style-type: none"> <li>1011</li> <li>1010</li> <li>0100</li> <li>1101</li> </ol>
counter and gate delays are negligible. If the counter starts at 0, then it cycles through the following sequence:	<ol style="list-style-type: none"> <li>0,3,4</li> <li>0,3,4,5</li> <li>0,1,2,3,4</li> <li>0,1,2,3,4,5</li> </ol>
CPU fetches the instruction from memory according to the value of	<ol style="list-style-type: none"> <li>program counter</li> <li>status register</li> <li>instruction register</li> <li>program status word</li> </ol>
Customer(customer_id,ono,dop) Here the customer_id is ____ and customer is a _	<ol style="list-style-type: none"> <li>Relations, Attribute</li> <li>Attributes, Relation</li> <li>Tuple, Relation</li> <li>Tuple, Attributes</li> </ol>
Data Integrity means	<ol style="list-style-type: none"> <li>Providing first access to stored data</li> <li>Providing data sharing</li> <li></li> </ol>

# Comprehensive Question Preview

	Providing access to modify structure of the database 4. Ensuring correctness and consistency of data
Data Manipulation Language enables users to	1. Retrieval of information stored in database 2. Insertion of new information into the database 3. Deletion of information from the database 4. All of the above
Database management systems are intended to	1. Eliminate data redundancy 2. Establish relationship among records in different files 3. Maintain data integrity 4. all of the these
Deadlocks are possible only when one of the transactions wants to obtain a(n) ____ lock on a data item.	1. binary 2. exclusive 3. shared 4. complete
Decoder is a	1. combinational circuit 2. sequential circuit 3. complex circuit 4. gate
Decoders and Encoders are doing reverse operation	1. True 2. False 3. Inverters 4. Inverters and AND gates
Deletion of a node in linked list involves keeping track of address of node which comes immediately	1. after the node that is to be deleted 2. before the node that is to be deleted 3. after the middle node 4. none of the above
DESTRUCTOR HAS THE SAME NAME AS THE CONSTRUCTOR AND ITS PRECEDED BY	1. ! 2.

# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>?</li> <li>3.</li> <li>~</li> <li>4.</li> <li>\$</li> </ol>
<p>Determine output:</p> <pre>void main() {     int c = - -2;     printf("c=%d", c); }</pre>	<ol style="list-style-type: none"> <li>1.</li> <li>1</li> <li>2.</li> <li>-2</li> <li>3.</li> <li>2</li> <li>4.</li> <li>Error</li> </ol>
<p>Determine the output frequency for a frequency division circuit that contains 12 flip-flops with an input clock frequency of 20.48 MHz.</p>	<ol style="list-style-type: none"> <li>1.</li> <li>10.24 kHz</li> <li>2.</li> <li>5 kHz</li> <li>3.</li> <li>30.24 kHz</li> <li>4.</li> <li>15 kHz</li> </ol>
<p>Difficulty of performing operations and joins due to __ value</p>	<ol style="list-style-type: none"> <li>1.</li> <li>Null</li> <li>2.</li> <li>key</li> <li>3.</li> <li>Single</li> <li>4.</li> <li>Multi</li> </ol>
<p>Digital electronics is based on the _____ numbering system.</p>	<ol style="list-style-type: none"> <li>1.</li> <li>decimal</li> <li>2.</li> <li>octal</li> <li>3.</li> <li>binary</li> <li>4.</li> <li>hexadecimal</li> </ol>
<p>Disadvantages of File systems to store data is:</p>	<ol style="list-style-type: none"> <li>1.</li> <li>Data redundancy and inconsistency</li> <li>2.</li> <li>Difficulty in accessing data</li> <li>3.</li> <li>Data isolation</li> <li>4.</li> <li>All of the above</li> </ol>
<p>Discrete quantities of information are represented in digital system with</p>	<ol style="list-style-type: none"> <li>1.</li> <li>Uni code</li> <li>2.</li> <li>ASCII code</li> <li>3.</li> <li>Binary Code</li> <li>4.</li> <li>Octal code</li> </ol>
<p>Dividing a program into functions</p>	<ol style="list-style-type: none"> <li>1.</li> <li>is the key to object oriented programming</li> <li>2.</li> <li>makes the program easier to conceptualize</li> <li>3.</li> <li>makes the program run faster</li> </ol>

# Comprehensive Question Preview

	<p>4. None</p>
DTMF stands for _____	<p>1. Dual Tone Magnetic Frequency</p> <p>2. Double Tone Magnetic Frequency</p> <p>3. Dual Tone Multiple Frequency</p> <p>4. Dual Tone Mechanical Frequency</p>
During the _____ design phase of database design, the properties of data are given importance, rather than its storage details.	<p>1. Conceptual</p> <p>2. Logical</p> <p>3. Physical</p> <p>4. Actual</p>
Dynamic loading is :	<p>1. <b>loading multiple routines dynamically</b></p> <p>2. <b>loading a routine only when it is called</b></p> <p>3. <b>loading multiple routines randomly</b></p> <p>4. <b>None of these</b></p>
Each gate has a delay of	<p>1. 1</p> <p>2. 2</p> <p>3. 3</p> <p>4. 4</p>
Each node in singly linked list has _____ fields.	<p>1. 2</p> <p>2. 3</p> <p>3. 1</p> <p>4. 4</p>
Earlier, reflected binary codes were applied to	<p>1. Binary addition</p> <p>2. 2's complement</p> <p>3. Mathematical puzzles</p> <p>4. binary multiplication</p>
Edge-triggered flip-flops must have:	<p>1. very fast response times</p> <p>2. at least two inputs to handle rising and falling edges</p> <p>3.</p>

# Comprehensive Question Preview

	positive edge-detection circuits 4. negative edge-detection circuits
Effective access time is directly proportional to	1. page-fault rate 2. hit ratio 3. memory access time 4. none of the mentioned
Eight minterms will be used for	1. three variables 2. four variables 3. five variables 4. six variables
Electric digital systems uses signals that have 2 distinct values and circuit elements having	1. One stable state 2. Two stable states 3. Three stable states 4. Four stable states
Empdt1(empcode, name, street, city, state, pincode). For any pincode, there is only one city and state. Also, for given street, city and state, there is just one pincode. In normalization terms, empdt1 is a relation in	1. 1 NF only 2. 2 NF and hence also in 1 NF 3. 3NF and hence also in 2NF and 1NF 4. BCNF and hence also in 3NF, 2NF and 1NF
Encoders are made by three	1. AND gate 2. OR gate 3. NAND gate 4. XOR gate
Entities are described by properties called as _____.	1. Attributes 2. Characteristics 3. Features 4. Relations
Entity Relationship model consists of collection of basic objects called _____ and relationship among these objects.	1. functions 2. models 3. entities

# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>4.</li> <li>None of these</li> </ol>
Entries in a stack are "ordered". What is the meaning of this statement?	<ol style="list-style-type: none"> <li>1. A collection of stacks is sortable</li> <li>2. Stack entries may be compared with the '&lt;' operation</li> <li>3. The entries are stored in a linked list</li> <li>4. There is a Sequential entry that is one by one</li> </ol>
External fragmentation exists when :	<ol style="list-style-type: none"> <li>1. enough total memory exists to satisfy a request but it is not contiguous</li> <li>2. the total memory is insufficient to satisfy a request</li> <li>3. a request cannot be satisfied even when the total memory is free</li> <li>4. None of these</li> </ol>
External fragmentation will not occur when :	<ol style="list-style-type: none"> <li>1. first fit is used</li> <li>2. best fit is used</li> <li>3. worst fit is used</li> <li>4. no matter which algorithm is used, it will always occur</li> </ol>
For an S-R flip-flop to be set or reset, the respective input must be:	<ol style="list-style-type: none"> <li>1. installed with steering diodes</li> <li>2. in parallel with a limiting resistor</li> <li>3. LOW</li> <li>4. HIGH</li> </ol>
For larger page tables, they are kept in main memory and a _____ points to the page table.	<ol style="list-style-type: none"> <li>1. page table base register</li> <li>2. page table base pointer</li> <li>3. page table register pointer</li> <li>4. page table base</li> </ol>
For the following code snippet: char *str = "VIT\0" "University"; The character pointer str holds reference to string:	<ol style="list-style-type: none"> <li>1. VIT</li> <li>2. VITUniversity</li> <li>3. University</li> <li>4. Invalid declaration</li> </ol>
For the following functional dependencies A->BC,CD->E,E->C,D->AEG,ABH->BD,DH->BC. Find the closure	<ol style="list-style-type: none"> <li>1. A+</li> <li>2. B+</li> <li>3. C+</li> <li>4.</li> </ol>

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	D+
Form of dependency in which set of attributes that are neither a subset of any of keys nor candidate key is classified as	<ol style="list-style-type: none"> <li>transitive dependency</li> <li>full functional dependency</li> <li>partial dependency</li> <li>prime functional dependency</li> </ol>
Four gates in a package is called	<ol style="list-style-type: none"> <li>Biruple</li> <li>Octruple</li> <li>Dualruple</li> <li>quadruple</li> </ol>
Full adder forms sum of	<ol style="list-style-type: none"> <li>2 bits</li> <li>3 bits</li> <li>4 bits</li> <li>5 bits</li> </ol>
Function has basically these two parts	<ol style="list-style-type: none"> <li>Definition and calling</li> <li>Calling and address</li> <li>calling and methods</li> <li>methods and declarations</li> </ol>
Function overloading is also similar to which of the following?	<ol style="list-style-type: none"> <li>Operator overloading</li> <li>Destructor overloading</li> <li>Constructor overloading</li> <li>None of the above</li> </ol>
Functional Dependencies are the types of constraints that are based on_____	
Functions are used to	<ol style="list-style-type: none"> <li>Provide modularity to code</li> <li>Increases number of lines</li> <li>Does not do the same work</li> <li>Used only for mathematical calculation</li> </ol>
Given an empty AVL tree, how would you construct AVL tree when a set of numbers are given without performing any rotations?	<ol style="list-style-type: none"> <li>just build the tree with the given input</li> <li>find the median of the set of elements given, make it as root and construct the tree</li> <li></li> </ol>

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	<p>use trial and error</p> <p>4. use dynamic programming to build the tree</p>
Grouped data are diagrammatically presented by :	<p>1.Bar diagram 2.Histogram 3.Simple graph 4.Pictogram</p>
Half-adders have a major limitation in that they cannot	<p>1. Accept a carry bit from a present stage</p> <p>2. Accept a carry bit from a next stage</p> <p>3. Accept a carry bit from a previous stage</p> <p>4. None of the Mentioned</p>
Here is an infix expression: $4 + 3 * (6 * 3 - 12)$ . Suppose that we are using the usual stack algorithm to convert the expression from infix to postfix notation.The maximum number of symbols that will appear on the stack AT ONE TIME during the conversion of this expression?	<p>1. 1</p> <p>2. 2</p> <p>3. 3</p> <p>4. 4</p>
How can you ensure that an inline function isn't inlined for a particular function call for function foo?	<p>1. <code>unline x();</code></p> <p>2. <code>noexpand x();</code></p> <p>3. <code>x();</code></p> <p>4. This is not possible on a case-by-case basis</p>
How does an arithmetic operation take place in binary adders?	<p>1. By addition of two bits corresponding to <math>2^n</math> digit</p> <p>2. By addition of resultant to carry from <math>2^{n-1}</math> digit</p> <p>3. both a &amp; b</p> <p>4. none of the above</p>
How does C++ compiler differs between overloaded postfix and prefix operators?	<p>1. C++ doesn't allow both operators to be overloaded in a class</p> <p>2. A postfix ++ has a dummy parameter</p> <p>3. A prefix ++ has a dummy parameter</p> <p>4. By making prefix ++ as a global function and postfix as a member function.</p>
How is a J-K flip-flop made to toggle?	<p>1. <math>J = 0, K = 0</math></p> <p>2. <math>J = 1, K = 0</math></p> <p>3. <math>J = 0, K = 1</math></p> <p>4. <math>J = 1, K = 1</math></p>



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How many 3-to-8 line decoders with an enable input are needed to construct a 6-to-64 line decoder without using any other logic gates?	1. 7 2. 8 3. 9 4. 10
How many AND, OR and EXOR gates are required for the configuration of full adder	1.1, 2, 2 2.2, 1, 2 3.3, 1, 2 4.4, 0, 1
How many bits would be required to encode decimal numbers 0 to 9999 in straight binary codes.	1. 12 2. 14 3. 16 4. 18
How many entries would a truth table for a four-input NAND gate have?	1.2 2.8 3.16 4.32
How many flip-flops are in the 7475 IC?	1. 1 2. 2 3. 4 4. 8

How many gates would be required to implement the following Boolean expression before simplification? $XY + X(X + Z) + Y(X + Z)$	1. 1 2. 2 3. 4 4. 5	134
How many pulses are needed to change the contents of a 8-bit up counter from 10101100 to 00100111	1.	
How many queues are needed to implement a stack?	1. 1 2. 2 3. 3 4. 4	
How many select lines would be required for an 8-line-to-1-line multiplexer?	1. 8 2.	

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	<ol style="list-style-type: none"> <li>2</li> <li>3.</li> <li>3</li> <li>4.</li> <li>4</li> </ol>
How many types of inheritance are there in c++?	<ol style="list-style-type: none"> <li>1.</li> <li>2</li> <li>2.</li> <li>3</li> <li>3.</li> <li>4</li> <li>4.</li> <li>5</li> </ol>
How to check whether the stack is empty or not ?	<ol style="list-style-type: none"> <li>1. S[Top]==-1</li> <li>2. S[Top +n]</li> <li>3. S[top-n-1]</li> <li>4. None of the option</li> </ol>
HSAM stands for?	<ol style="list-style-type: none"> <li>1. Hierarchic Sequential Access Method</li> <li>2. Hierarchic Standard Access Method</li> <li>3. Hierarchic Sequential and Method</li> <li>4. Hierarchic Standard and Method</li> </ol>
IC decoders are made with	<ol style="list-style-type: none"> <li>1. AND gate</li> <li>2. OR gate</li> <li>3. NAND gate</li> <li>4. XOR gate</li> </ol>
Identify the characteristics of transactions	<ol style="list-style-type: none"> <li>1. Atomicity</li> <li>2. Durability</li> <li>3. Isolation</li> <li>4. All of the mentioned</li> </ol>
Identify the data structure which allows deletions at both ends of the list but insertion at only one end.	<ol style="list-style-type: none"> <li>1. Input restricted dequeue</li> <li>2. Output restricted queue</li> <li>3. Priority queues</li> <li>4. Stack</li> </ol>

  

<p>If a 3-input AND gate has eight input possibilities, how many of those possibilities will result in a HIGH output?</p>	<ol style="list-style-type: none"> <li>1.1</li> <li>2. 2</li> </ol>
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	3.3  4.4
If a 3-input NOR gate has eight input possibilities, how many of those possibilities will result in a HIGH output?	1. 1 2. 2 3. 7 4. 8 8
If A and B are the inputs of a half adder, the sum is given by	1. A AND B 2. A OR B 3. A XOR B 4. A EXOR B
If a database server is referenced in a distributed transaction, the value of its commit point strength determines which role it plays in the .....	1. two phase commit 2. two phase locking 3. transaction locking 4. checkpoints
If a node having two children is deleted from a binray tree, it is replaced by its ____	1. Preorder Predecessor 2. Preorder Successor 3. Inorder Predecessor 4. Inorder Successor
If a signal passing through a gate is inhibited by sending a LOW into one of the inputs, and the output is HIGH, the gate is a(n):	1. AND 2. NAND 3. OR 4. NOT
If a transaction acquires a shared lock, then it can perform ..... operation.	1. read 2. write 3. read and write 4. update
If a transaction acquires exclusive lock, then it can perform ..... operation.	1. read 2. write 3. read and write 4. update

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If a transaction obtains a shared lock on a row, it means that the transaction wants to ..... that row.	<ol style="list-style-type: none"> <li>1. write</li> <li>2. insert</li> <li>3. execute</li> <li>4. read</li> </ol>
If a transaction obtains an exclusive lock on a row, it means that the transaction wants to ..... that row.	<ol style="list-style-type: none"> <li>1. select</li> <li>2. update</li> <li>3. view</li> <li>4. read</li> </ol>
If an input is activated by a signal transition, it is _____.	<ol style="list-style-type: none"> <li>1. edge-triggered</li> <li>2. toggle triggered</li> <li>3. clock triggered</li> <li>4. noise triggered</li> </ol>
If any anomalies are present make sure that programs that ____ the database will operate correctly	<ol style="list-style-type: none"> <li>1. Insert</li> <li>2. Delete</li> <li>3. Update</li> <li>4. Alter</li> </ol>
If attributes A and B determine attribute C, then it is also true that:	<ol style="list-style-type: none"> <li>1. A ? C.</li> <li>2. B ? C.</li> <li>3. (A,B) is a composite determinant.</li> <li>4. C is a determinant.</li> </ol>
If both inputs of an S-R flip-flop are low, what will happen when the clock goes HIGH?	<ol style="list-style-type: none"> <li>1. An invalid state will exist.</li> <li>2. No change will occur in the output.</li> <li>3. The output will toggle.</li> <li>4. The output will reset.</li> </ol>
If every functional dependency in set E is also in closure of F then this is classified as	<ol style="list-style-type: none"> <li>1. FD is covered by E</li> <li>2. E is covered by F</li> <li>3. F is covered by E</li> <li>4. Fplus is covered by E</li> </ol>
If relocation is static and is done at assembly or load time, compaction _____.	<ol style="list-style-type: none"> <li>1. cannot be done</li> <li>2. must be done</li> <li>3.</li> </ol>

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	<p>must not be done</p> <p>4. can be done</p>
<p>If several requests have different deadlines that are relatively close together, then using the SCAN – EDF algorithm :</p>	<p>1. The SCAN ordering will service the requests in that batch</p> <p>2. The EDF ordering will service the requests in that batch</p> <p>3. The FCFS ordering will service the requests in that batch</p> <p>4. None of these</p>
<p>If the thread pool contains no available thread :</p>	<p>1. <b>the server runs a new process</b></p> <p>2. <b>the server goes to another thread pool</b></p> <p>3. <b>the server demands for a new pool creation</b></p> <p>4. <b>the server waits until one becomes free</b></p>
<p>If the variables x and y are not linearly related, then the correlation between x and y is:</p>	<p>1.0 2.-1 3.1 4.0.5</p>
<p>If there are 32 segments, each of size 1Kb, then the logical address should have :</p>	<p>1. 13 bits</p> <p>2. 14 bits</p> <p>3. 15 bits</p> <p>4. 16 bits</p>

<p>If two inputs are active on a priority encoder, which will be coded on the output?</p>	<p>1. the higher value</p> <p>2. the lower value</p> <p>3. both of the inputs</p> <p>4. neither of the inputs</p>
<p>If we choose Prim's Algorithm for uniquely weighted spanning tree instead of Kruskal's Algorithm, then</p>	<p>1. we'll get a different spanning tree.</p> <p>2. we'll get the same spanning tree.</p> <p>3. spanning will have less edges.</p> <p>4. spanning will not cover all vertices.</p>
<p>If we perform xor operation of same operand then what is the status condition that is getting affected?</p>	<p>1. zero</p> <p>2. Sign</p> <p>3. Carry</p> <p>4. overflow</p>

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<p>If X is a Poisson variate with mean <math>\lambda</math> such that <math>P(X = 3) = P(X = 4)</math>, then the value of <math>\lambda</math> is</p>	<ol style="list-style-type: none"> <li>1.</li> <li>3</li> <li>2.</li> <li>4</li> <li>3.</li> <li>2</li> <li>4.</li> <li>6</li> </ol>
<p>If Y subset-of X, then</p>	<ol style="list-style-type: none"> <li>1. Y <math>\rightarrow</math> X</li> <li>2. X <math>\rightarrow</math> Y</li> <li>3. XY <math>\rightarrow</math> Y</li> <li>4. None of the above</li> </ol>
<p>If you have an empty queue and you insert characters 'r', 'a', 't' (in this order only), what is the order of the characters when you dequeue all the elements?</p>	<ol style="list-style-type: none"> <li>1. 'r', 'a', 't'</li> <li>2. 't', 'a', 'r'</li> <li>3. 'r', 't', 'a'</li> <li>4. 't', 'r', 'a'</li> </ol>
<p>If you were collecting and storing information about your music collection, an album would be considered a(n) ____.</p>	<ol style="list-style-type: none"> <li>1. Relation</li> <li>2. Entity</li> <li>3. Instance</li> <li>4. Attribute</li> </ol>
<p>If <math>b_{YX} = -\frac{1}{6}</math> and <math>b_{XY} = -\frac{2}{3}</math> are the two regression coefficients of variables X and Y, then the value of the correlation coefficient <math>r(X, Y)</math> is</p>	<ol style="list-style-type: none"> <li>1. <math>\frac{1}{3}</math></li> <li>2. <math>\frac{1}{9}</math></li> <li>3. <math>-\frac{1}{3}</math></li> <li>4. <math>-\frac{1}{9}</math></li> </ol>
<p>In ....., we have many mini transactions within a main transaction.</p>	<ol style="list-style-type: none"> <li>1. transaction control</li> <li>2. chained transaction</li> <li>3. nested transaction</li> <li>4. calling transaction</li> </ol>
<p>In ..... policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.</p>	<ol style="list-style-type: none"> <li>1. Last in first out</li> <li>2. Shortest service time first</li> <li>3. SCAN</li> <li>4. Circular SCAN</li> </ol>
<p>In ..... inheritance, the base classes are constructed in the order in which they appear in the deceleration of the derived class.</p>	<ol style="list-style-type: none"> <li>1. multipath</li> <li>2. multiple</li> </ol>

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	<ol style="list-style-type: none"> <li>multilevel</li> <li>hierarchical</li> </ol>
In ..... inheritance, the constructors are executed in the order of inheritance.	<ol style="list-style-type: none"> <li>multipath</li> <li>multiple</li> <li>multilevel</li> <li>hierarchical</li> </ol>
In 2NF	<ol style="list-style-type: none"> <li>No functional dependencies exist.</li> <li>No multivalued dependencies exist.</li> <li>No partial functional dependencies exist</li> <li>No partial multivalued dependencies exist.</li> </ol>
In _____, information is recorded magnetically on platters.	<ol style="list-style-type: none"> <li>Magnetic disks</li> <li>Electrical disks</li> <li>Assemblies</li> <li>Cylinders</li> </ol>
In _____, there is an inefficient use of memory due to internal fragmentation.	<ol style="list-style-type: none"> <li>Fixed partitioning</li> <li>Simple Paging</li> <li>Virtual memory paging</li> <li>Simple segmentation</li> </ol>
In _____, there is an inefficient use of processor due to the need for compaction to counter external fragmentation.	<ol style="list-style-type: none"> <li>Fixed partitioning</li> <li>Dynamic partitioning</li> <li>Virtual memory paging</li> <li>Simple segmentation</li> </ol>
In _____ linked list, there are backward and forward link	<ol style="list-style-type: none"> <li>Single Linked List</li> <li>Doubly linked list</li> <li>Circular linked list</li> <li>All the option</li> </ol>
In a 2-tree, nodes with 0 children are called ____	<ol style="list-style-type: none"> <li>External node</li> <li>Exterior node</li> <li>Outer node</li> <li></li> </ol>

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	Outside node
In a circular queue the value of r will be _____	<ol style="list-style-type: none"> <li>1. <math>r=r+1</math></li> <li>2. <math>r=(r+1)\% [QUEUE\_SIZE - 1]</math></li> <li>3. <math>r=(r+1)\% QUEUE\_SIZE</math></li> <li>4. <math>r=(r-1)\% QUEUE\_SIZE</math></li> </ol>
In a doubly linked list traversing comes to a halt at	<ol style="list-style-type: none"> <li>1. null</li> <li>2. front</li> <li>3. rear</li> <li>4. rear-1</li> </ol>

In a four variable Karnaugh map eight adjacent cells give a	<ol style="list-style-type: none"> <li>1. Two variable term</li> <li>2. single variable term</li> <li>3. Three variable term</li> <li>4. four variable term</li> </ol>
In a full binary tree if number of internal nodes is I, then number of leaves L are?	<ol style="list-style-type: none"> <li>1. <math>L = 2I</math></li> <li>2. <math>L = I + 1</math></li> <li>3. <math>L = I - 1</math></li> <li>4. <math>L = 2I - 1</math></li> </ol>
In a linked list the _____ field contains the address of next element in the list.	<ol style="list-style-type: none"> <li>1. Link field</li> <li>2. Next element field</li> <li>3. Start field</li> <li>4. Info field</li> </ol>
In a paged memory, the page hit ratio is 0.35. The required to access a page in secondary memory is equal to 100 ns. The time required to access a page in primary memory is 10 ns. The average time required to access a page is :	<ol style="list-style-type: none"> <li>1. 3.0 ns</li> <li>2. 68.0 ns</li> <li>3. 68.5 ns</li> <li>4. 78.5 ns</li> </ol>
In a priority queue, insertion and deletion takes place at	<ol style="list-style-type: none"> <li>1. front, rear end</li> <li>2. only at rear end</li> <li>3.</li> </ol>



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	only at front end 4. any position
In a queue, the initial values of front pointer f rear pointer r should be ..... and ..... respectively.	1. 0 and 1 2. 0 and -1 3. -1 and 0 4. 1 and 0
In a relational model, relations are termed as	1. Tuples 2. Attributes 3. Tables 4. Rows
In a stack the command to access nth element from top of the stack s will be _____	1. S[Top -n] 2. S[Top +n] 3. S[top-n-1] 4. None of the above
In a three variable K-Map with minterms of variables x, y, and z an Octet will represent	1. x 2. x' 3. z 4. 1
In a two-phase locking protocol, a transaction release locks in ..... phase.	1. shrinking phase 2. growing phase 3. running phase 4. initial phase

In a two-phase locking protocol, a transaction release locks in ..... phase.	1. shrinking phase 2. growing phase 3. running phase 4. initial phase
In a(n) ____ backup of the database, only the last modifications to the database are copied.	1. full 2. incomplete 3. differential

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	4. transaction log				
In an E-R diagram an entity set is represent by a	1. rectangle. 2. ellipse 3. diamond box 4. circle.				
In an Entity-Relationship Diagram Rectangles represents	1. Entity sets 2. Attributes 3. Database 4. Tables				
In an expression involving    operator, evaluation I.Will be stopped if one of its components evaluates to false II.Will be stopped if one of its components evaluates to true III.Takes place from right to left IV. Takes place from left to right	1. I and II 2. I and III 3. II and III 4. II and IV				
In an operating system a utility which lets the users issue and execute commands from the keyboard is called:	1. Terminal Handler 2. Command Interpreter 3. Kernel 4. None of the above				
In an operating system a utility which lets the users issue and execute commands from the keyboard is called:	1. Terminal Handler 2. Command Interpreter 3. Kernel 4. None of the above				
In an SR latch made by cross-coupling two NAND gates, if both S and R inputs are set to 0, then it will result in	1.	Q = 0, Q' = 1	Q = 1, Q' = 0	Q = 1, Q' = 1	Indeterminate states
In Augmentation Inference rule If $X \rightarrow Y$ , then $XZ \rightarrow$	1. ZX 2. YZ 3. YX 4. None of the above				
In C++, const qualifier can be applied to 1) Member functions of a class 2) Function arguments 3) To a class	1. Only 1, 2 and 3				

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data member which is declared as static 4) Reference variables	2. Only 1, 2 and 4 3. All 4. Only 1, 3	
In C, sizes of an integer and a pointer must be same.	1.True 2.False 3.Choose either true or false 4.Neither true nor false	
In case of operator overloading, operator function must be _____. 1. Static member functions 2. Non- static member functions 3.Friend Functions	1. Only 2 2. Only 1, 3 3. Only 2 , 3 4. All 1 , 2, 3	
In circular linked list, insertion of node requires modification of?	1. One pointer 2. Two pointer 3. Three pointer 4. None	
In Decomposition Inference rule If _ then $X \rightarrow Y$ and $X \rightarrow Z$	1. $XY \rightarrow Y$ 2. $X \rightarrow YZ$ 3. $YZ \rightarrow X$ 4. None of the above	
In doubly linked lists, traversal can be performed?	1. Only in forward direction 2. Only in reverse direction 3. In both directions 4. None	
In ER diagrams, the total participation is displayed as a _____.	1. Oval 2. Single line 3. Double line 4. Arrow	
In FIFO page replacement algorithm, when a page must be replaced	1. oldest page is chosen 2. newest page is chosen 3. random page is chosen 4. none of the mentioned	
In fixed sized partition, the degree of multiprogramming is bounded by _____.	1.	

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	the number of partitions 2. the CPU utilization 3. the memory size 4. All of these
In Functional dependency $x \rightarrow y$ , x attribute is know as	1. Determinant 2. primary key 3. key 4. None
In K-map pairing of minterms to eliminate literal uses following postulate:	1. $x.x' = 0$ 2. $x + x' = 1$ 3. $x + 0 = x$ 4. $(x')' = x$
In linear search algorithm the Worst case occurs when	1. The item is somewhere in the middle of the array 2. The item is not in the array at all 3. The item is the last element in the array 4. The item is the last element in the array or is not there at all
In linked list there are no NULL links in	1. Single Linked List 2. Doubly linked list 3. Circular linked list 4. All the option
In log based recovery, the log is sequence of	1. filter 2. records 3. blocks 4. numbers
In map representation number of variables cannot be exceeded by	1. 4,5 2. 2,3 3. 5,6 4. 7,8
In order to keep track of current topmost element of the stack we need to maintain one variable.	1. True 2. False 3.

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	Partially Correct 4. None of the above.
In paging the user provides only _____, which is partitioned by the hardware into _____ and _____.	1. one address, page number, offset 2. one offset, page number, address 3. page number, offset, address 4. None of these
In Psuedotransitivity Inference rule If $X \rightarrow Y$ and $WY \rightarrow Z$ , then	1. $WX \rightarrow Z$ 2. $WY \rightarrow X$ 3. $Y \rightarrow Z$ 4. None of the above
In relation schema common attributes is one way of relating _____ relations.	1. Attributes of common 2. Tuple of common 3. Tuple of distinct 4. Attributes of distinct
In SCAN – EDF, requests with the same deadlines are ordered according to :	1. SCAN policy 2. EDF policy 3. FCFS policy 4. FIFO policy
In the ....., one transaction inserts a row in the table while the other transaction is half way through its browsing of table.	1. transaction read problem 2. one way read problem 3. serial read problem 4. phantom read problem
In the ..... scheme, two different parity calculations are carried out an stored in separate blocks on different disks.	1. RAID Level 4 2. RAID Level 5 3. RAID Level 6 4. RAID Level 3
In the _____ normal form, a composite attribute is converted to individual attributes.	1. First 2. Second 3. Third 4. Fourth
In the _____ normal form, a composite attribute is converted to individual attributes.	1. First

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	2. Second 3. Third 4. Fourth
In the expression $A(A+B)$ , by writing the first term $A$ as $A+0$ , the expression is best simplified as	1. $A+AB$ 2. $AB$ 3. $A$ 4. $A+B$
In the expression $A+BC$ , the total number of min terms will be	1. 2 2. 3 3. 4 4. 5
In the following FD $\{a1 \rightarrow a2, a2 \rightarrow a3, a1 \rightarrow a3\}$ which attribute will act as key	1. $a1$ 2. $a2$ 3. $a3$ 4. None of the above
In the following scenarios, when will you use selection sort?	1. The input is already sorted 2. A large file has to be sorted 3. Large values need to be sorted with small keys 4. Small values need to be sorted with large keys
In the given FD $F=\{B \rightarrow A, D \rightarrow A, AB \rightarrow D\}$ . Find the minimal cover	1. $F=\{D \rightarrow A, B \rightarrow D\}$ 2. $F=\{B \rightarrow A, D \rightarrow A\}$ 3. Both A and B 4. None of the above
In the multiprogramming environment, the main memory consist of _____ number of process?	1. >100 2. only one 3. >50 4. More than one
In the stack process of inserting an element in the stack is called as _____.	1. Pop 2. Evaluation 3. Create

# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>4. Push</li> </ol>
In the stack, if user try to remove an element from the empty stack then it called as _____.	<ol style="list-style-type: none"> <li>1. Empty Collection</li> <li>2. Stack Underflow</li> <li>3. Stack Overflow</li> <li>4. Garbage Collection</li> </ol>
In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is	<ol style="list-style-type: none"> <li>1. <math>O(\log 2 n)</math></li> <li>2. <math>O(n/2)</math></li> <li>3. <math>O(\log 2 n - 1)</math></li> <li>4. <math>O(n)</math></li> </ol>
In two phase commit, ..... coordinates the synchronization of the commit or rollback operations.	<ol style="list-style-type: none"> <li>1. database manager</li> <li>2. central coordinator</li> <li>3. participants</li> <li>4. concurrency control manager</li> </ol>
In two-phase locking protocol, a transaction obtains locks in .....phase.	<ol style="list-style-type: none"> <li>1. shrinking phase</li> <li>2. growing phase</li> <li>3. running phase</li> <li>4. initial phase</li> </ol>
In which Access method , Cycle time is Same for all the blocks of memory	<ol style="list-style-type: none"> <li>1. Random Access</li> <li>2. Sequential Access</li> <li>3. Direct Access</li> <li>4. Semi Random Access</li> </ol>
In which operation carry is obtained?	<ol style="list-style-type: none"> <li>1. Subtraction</li> <li>2. Addition</li> <li>3. Multiplication</li> <li>4. Both addition and subtraction</li> </ol>
In which traversal we process all of a vertex's descendants before we move to an adjacent vertex.	<ol style="list-style-type: none"> <li>1. Depth Limited</li> <li>2. Depth First</li> <li>3. Breadth First</li> <li>4. With first</li> </ol>
Indexing the _____ element in the list is not possible in linked lists	<ol style="list-style-type: none"> <li>1.</li> </ol>

# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>middle</li> <li>first</li> <li>last</li> <li>any where in between</li> </ol>
int marks[30]; What the number 30 tells us	<ol style="list-style-type: none"> <li>int data type size</li> <li>int value= marks[2]</li> <li>marks[9] = 30</li> <li>marks[30]=0</li> </ol>
Invalid BCD can be made to valid BCD by adding with _____	<ol style="list-style-type: none"> <li>0101</li> <li>0110</li> <li>0111</li> <li>1001</li> </ol>
Is a pile in which items are added at one end and removed from the other.	<ol style="list-style-type: none"> <li>Stack</li> <li>Queue</li> <li>List</li> <li>None</li> </ol>
It is impossible to represent which of the following in a relational schema?	<ol style="list-style-type: none"> <li>Any mandatory participation constraint in a many-to-one relationship</li> <li>Any mandatory participation constraint in a many-to-many relationship</li> <li>A one-to-one relationship</li> <li>A many-to-one relationship</li> </ol>
It is possible to declare as a friend	<ol style="list-style-type: none"> <li>a member function</li> <li>a global function</li> <li>class</li> <li>a member function, a global function and a class</li> </ol>
It is possible to detect deadlocks in a database system at the following cost:	<ol style="list-style-type: none"> <li>Query the database with SQL</li> <li>Special hardware devices</li> <li>Slower overall processing</li> <li>It is not possible to detect deadlocks</li> </ol>
Kernel mode of operation is also called as	<ol style="list-style-type: none"> <li></li> </ol>



# Comprehensive Question Preview

	<ol style="list-style-type: none"> <li>User mode</li> <li>Privileged mode</li> <li>Monitor mode.</li> <li>Mode</li> </ol>	
Latches constructed with NOR and NAND gates tend to remain in the latched condition due to which configuration feature?	<ol style="list-style-type: none"> <li>cross coupling</li> <li>gate impedance</li> <li>low input voltages</li> <li>asynchronous operation</li> </ol>	
Let A and B is the input of a subtractor then the output will be	<ol style="list-style-type: none"> <li>A XOR B</li> <li>A AND B</li> <li>A OR B</li> <li>A EXNOR B</li> </ol>	
Let A and B is the input of a subtractor then the output will be	<ol style="list-style-type: none"> <li>A XOR B</li> <li>A AND B</li> <li>A OR B</li> <li>A EXNOR B</li> </ol>	
Let $k = 2^n$ . A circuit is built by giving the output of an n-bit binary counter as input to an n-to- $2^n$ bit decoder. This circuit is equivalent to a	<ol style="list-style-type: none"> <li>k-bit binary up counter</li> <li>k-bit binary down counter</li> <li>k-bit ring counter</li> <li></li> </ol>	k-bit Johnson counter.
Let the following circular queue can accommodate maximum six elements with the following data front = 2 rear = 4 queue = ____; L, M, N, __, __ What will happen after ADD O operation takes place?	<ol style="list-style-type: none"> <li>front = 2 rear = 5 queue = ____; L, M, N, O, __</li> <li>front = 3 rear = 5 queue = L, M, N, O, __</li> <li>front = 3 rear = 4 queue = ____; L, M, N, O, __</li> <li>front = 2 rear = 4 queue = L, M, N, O, __</li> </ol>	
Linked list is generally considered as an example of _____ type of memory allocation	<ol style="list-style-type: none"> <li>Static</li> <li>Dynamic</li> <li>Compile Time</li> <li>None of these</li> </ol>	

# Comprehensive Question Preview

Linked lists are best suited _____	<ol style="list-style-type: none"> <li>1. for relatively permanent collections of data.</li> <li>2. for the size of the structure and the data in the structure are constantly changing.</li> <li>3. data structure</li> <li>4. for none of above situation</li> </ol>
Linked lists are not suitable to for the implementation of?	<ol style="list-style-type: none"> <li>1. Insertion sort</li> <li>2. Radix sort</li> <li>3. Polynomial manipulation</li> <li>4. Binary search</li> </ol>
LLINK is the pointer pointing to the _____	<ol style="list-style-type: none"> <li>1. successor node</li> <li>2. predecessor node</li> <li>3. head node</li> <li>4. last node</li> </ol>
Locks placed by command are called _____	<ol style="list-style-type: none"> <li>1. implicit locks</li> <li>2. explicit locks</li> <li>3. exclusive locks</li> <li>4. shared locks</li> </ol>
Media Recovery refers to recovering database	<ol style="list-style-type: none"> <li>1. after database has been physically damaged</li> <li>2. after some individual transaction has failed</li> <li>3. after inconsistent transaction has been identified</li> <li>4. after a system crash</li> </ol>
Members of a class object are accessed with the	<ol style="list-style-type: none"> <li>1. Dot operator</li> <li>2. Scope resolution operator</li> <li>3. Stream insertion operator</li> <li>4. Extraction operator</li> </ol>
Memory	<ol style="list-style-type: none"> <li>1. is a device that performs a sequence of operations specified by instructions in memory.</li> <li>2. is the device where information is stored</li> <li>3. is a sequence of instructions</li> <li>4. is typically characterized by interactive processing and time-slicing of the CPU's time to allow quick response to each user.</li> </ol>
Memory Address locations are specified using which data representation	<ol style="list-style-type: none"> <li>1. Sign-magnitude</li> <li>2.</li> </ol>

# Comprehensive Question Preview

	one's complement 3. Unsigned 4. two's complement
memory buffer used to accommodate a speed differential is called	1. stack pointer 2. cache 3. accumulator 4. disk buffer
Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called	1. Fragmentation 2. Paging 3. Mapping 4. none of the mentioned
Minimization of following Boolean function will result in: $F(A,B,C) = \sum (0,1,2,3,4,5,6,7)$	1. 0 2. 1 3. A 4. A'
Minterms are arranged in map in a sequence of	1. Binary sequence 2. Gray code 3. Binary variables 4. BCD code
Modification schema of oracle database in one level without affecting the schema in high level is called as _____	1. Data Migration 2. Data Isolation 3. Data Independence 4. Data Abstraction
Most demultiplexers facilitate which type of conversion?	1. decimal-to-hexadecimal 2. single input, multiple outputs 3. ac to dc 4. odd parity to even parity
Multimedia systems require _____ scheduling to ensure critical tasks will be serviced within timing deadlines.	1. Soft real time 2. Hard real time 3. Normal 4. None of these

# Comprehensive Question Preview

Multiple inheritance leaves room for a derived class to have _____ members.	<ol style="list-style-type: none"> <li>dynamic</li> <li>Private</li> <li>onlineexam.br&gt;</li> <li>ambiguous</li> </ol>
Multiplexors use decoders. Which combinational circuit do encoders use	<ol style="list-style-type: none"> <li>encoder</li> <li>decoder</li> <li>both</li> <li>neither</li> </ol>
Multivalued attributes are shown by _____.	<ol style="list-style-type: none"> <li>()</li> <li>{ }</li> <li>&lt; &gt;</li> <li>" "</li> </ol>
Name the process with Process ID '1' in LINUX.	<ol style="list-style-type: none"> <li>Background</li> <li>Orphan</li> <li>Zombie</li> <li>Novel</li> </ol>

New nodes are added to the ..... of the queue.

- 1.Front
- 2.Rear
- 3.Middle
- 4.Both Front and Rear

On a positive edge-triggered S-R flip-flop, the outputs reflect the input condition when \_\_\_\_\_.

1. the clock pulse is LOW
2. the clock pulse is HIGH
3. the clock pulse transitions from LOW to HIGH
4. the clock pulse transitions from HIGH to LOW

One application of a digital multiplexer is to facilitate:

1. data generation
2. serial-to-parallel conversion
3. parity checking
4. data selector

One difference between a queue and a stack is

1. Queue requires dynamic memory but stacks do not
2. Stack requires dynamic memory but queues do not
3. Queues use two ends of the structures but stacks use only one
- 4.

# Comprehensive Question Preview

Stacks use two ends of the structure but queues use only one  
One that is a universal gate

- 1. AND
- 2. NAND
- 3. OR
- 4. NOT

Operating System maintains the page table for

- 1. each process
- 2. each thread
- 3. each instruction
- 4. each address

Operating system is

- 1. Hardware
- 2. Software
- 3. Firmware
- 4. Middleware

Operating System maintains the page table for

- 1. each process
- 2. each thread
- 3. each instruction
- 4. each address

Output of following program?

```
#include<stdio.h>
int main()
{
    float x = 0.1;
    if ( x == 0.1 )
        printf("IF");
    else if (x == 0.1f)
        printf("ELSE IF");
    else
        printf("ELSE");
}
```

- 1. ELSE IF
- 2. IF
- 3. ELSE
- 4. None

Output will be a LOW for any case when one or more inputs are zero for a(n):

- 1. AND
- 2. NAND
- 3. OR
- 4. NOT

Overall design of the database is called as _____.	1. Database Inst 2.
--	------------------------

# Comprehensive Question Preview

	<div>Database Abs</div> <div>3. Database Sch</div> <div>4. None of these</div>
<div>Pick out the correct statement.</div>	<div>1. virtual functi</div> <div>function.</div> <div>2. virtual functi</div> <div>function.</div> <div>3. virtual functi</div> <div>function.</div> <div>4. none</div>
<div>Pick the odd one out</div>	<div>1. Primary Key</div> <div>2. Super Key</div> <div>3. Candidate Ke</div> <div>4. Foreign Key</div>
<div>Pointer is pointing to the first element of the Node then time require to Insert Element to second position is _____.</div>	<div>1. <math>O(n)</math></div> <div>2. <math>O(1)</math></div> <div>3. <math>O(2n)</math></div> <div>4. <math>O(3n)</math></div>
<div>Predict the output of following program.</div> <div>#include &lt;iostream&gt;</div> <div>using namespace std;</div> <div>class A</div> <div>{</div> <div>protected:</div> <div>int x;</div> <div>public:</div> <div>A() {x = 0;}</div> <div>friend void show();</div> <div>};</div> <div>class B: public A</div> <div>{</div> <div>public:</div> <div>B() : y (0) {}</div> <div>private:</div> <div>int y;</div> <div>};</div> <div>void show()</div> <div>{</div> <div>A a;</div> <div>B b;</div> <div>cout &lt;&lt; "The default value of A::x = " &lt;&lt; a.x &lt;&lt; " ";</div> <div>cout &lt;&lt; "The default value of B::y = " &lt;&lt; b.y;</div> <div>}</div>	<div>1. Compiler Err</div> <div>2. Compiler Err</div> <div>3. The default v</div> <div>4. Compiler Dep</div>
<div>Predict the output of the following program?</div> <div>include&lt;iostream&gt;</div> <div>using namespace std;</div> <div>class Test</div>	<div>1. Compiler Err</div> <div>2. fun()</div> <div>3.</div>

# Comprehensive Question Preview

<pre>{     protected:         int x;     public:         Test (int i):x(i) {}         void fun() const { cout &lt;&lt; "fun() const " &lt;&lt; endl; }         void fun()      { cout &lt;&lt; "fun() " &lt;&lt; endl; } };  int main() {     Test t1 (10);     const Test t2 (20);     t1.fun();     t2.fun();     return 0; }</pre>	<pre>fun() const 4. Const fun()</pre>
<p>Predict the output</p> <pre>#include &lt;stdio.h&gt; int main() {     float c = 5.0;     printf ("Temperature in Fahrenheit is %.2f", (9/5)*c + 32);     return 0; }</pre>	<pre>1. Temperature 2. Temperature 3. Temperature 4. Compiler Error</pre>
<p>Prevention of access to the database by unauthorized users is referred to as:</p>	<pre>1. Productivity 2. Security 3. Reliability 4. Integrity</pre>
<p>Problems with NULL value</p>	<pre>1. Wasted storage 2. Problems under 3. Both A and B 4. None of the above</pre>
<p>Process is</p>	<pre>1. program in H 2. contents of m 3. a program in 4. a job in second</pre>
<p>Process of removing an element from the stack is called as _____.</p>	<pre>1. Push 2. Pop 3. Create 4. Enter</pre>
<p>Process synchronization can be done on</p>	<pre>1. hardware level 2. software level 3. both (a) and (b) 4.</pre>

# Comprehensive Question Preview

	none of the m
Program always deals with	1. logical address 2. absolute address 3. physical address 4. relative address
Program always deals with	1. logical address 2. absolute address 3. physical address 4. relative address
Program always deals with	1. logical address 2. absolute address 3. physical address 4. relative address
Property of normalization of relations which guarantees that functional dependencies are represented in separate relations after decomposition is classified as	1. nonadditive join 2. independency 3. dependency preserving 4. additive join
push() and pop() functions are found in _____	1. Queue 2. List 3. Stack 4. Tree
Pushing an element into a full stack leads to _____	1.Pop 2.Crash 3.Create 4.Overflow
putchar(c) function/macro always outputs character c to the:	1. screen 2. standard output 3. depends on the compiler 4. depends on the platform
Queue can be used to implement ?	1. quick sort 2. merge sort 3. heap sort



# Comprehensive Question Preview

	4. insertion sort
Queue can be used to implement ?	1. radix sort 2. quick sort 3. recursion 4. depth first se
Queue follows_____	1. LIFO 2. FIFO 3. LILO 4. Array
QuickSort can be categorized into which of the following?	1. Brute Force t 2. Divide and co 3. Greedy algori 4. Dynamic prog
Reflected binary code is also known as	1. BCD code 2. Binary code 3. ASCII code 4. Gray Code
REGARDING THE CONSTRUCTORS OF A CLASS	1. ALL CONSTR 2. THE NAME O CLASS 3. CONSTRUCTO ANY TYPE  4. ALL THE ANS
Related fields in a database are grouped to form a	1. data file 2. data record. 3. menu. 4. bank.
Reusability of the code can be achieved in CPP through	1. Polymorphis 2. Encapsulation 3. Inheritance 4. None

# Comprehensive Question Preview

Rollback of transactions is normally used to	<ol style="list-style-type: none"> <li>1. Update the tr</li> <li>2. Recover from</li> <li>3. Retrieve old r</li> <li>4. Repeat a tran</li> </ol>
Rotary Switch is an example for _____	<ol style="list-style-type: none"> <li>1. Multiplexer</li> <li>2. Decoder</li> <li>3. Encoder</li> <li>4. Demultiplexe</li> </ol>
Row is synonymous with the term:	<ol style="list-style-type: none"> <li>1. record.</li> <li>2. relation.</li> <li>3. column.</li> <li>4. field.</li> </ol>
Rule which states that addition of same attributes to right side and left side will results in other valid dependency is classified as	<ol style="list-style-type: none"> <li>1. referential ru</li> <li>2. inferential ru</li> <li>3. augmentation</li> <li>4. reflexive rule</li> </ol>
Run time mapping from virtual to physical address is done by	<ol style="list-style-type: none"> <li>1. memory man</li> <li>2. CPU</li> <li>3. PCI</li> <li>4. none of the m</li> </ol>
Run time mapping from virtual to physical address is done by	<ol style="list-style-type: none"> <li>1. memory man</li> <li>2. CPU</li> <li>3. PCI</li> <li>4. none of the m</li> </ol>
Select the canonical sum-of-products representation of the following function: $f(x,y,z) = xy' + y(x+z)$	<ol style="list-style-type: none"> <li>1. <math>f(x,y,z) = xy' + y(x+z)</math></li> <li>2. <math>f(x,y,z) = x + yz</math></li> <li>3. <math>f(x,y,z) = xy'z'</math></li> <li>4. <math>f(x,y,z) = (x + yz)</math></li> </ol>
Servicing requests strictly according to deadline using EDF may result in :	<ol style="list-style-type: none"> <li>1. Lower seek ti</li> <li>2. Lower bandw</li> <li>3. Higher seek t</li> </ol>

# Comprehensive Question Preview

		4. Higher bandwidth
Special type of registers are		1. latch 2. flip-flop 3. counters 4. memory
SQL is a _____ language.		1. Object-oriented 2. Non-Procedural 3. Declarative 4. Procedural
Stack is a _____ data Structure.		1.FIFO 2.LIFO 3.LILO 4.None of the
State true or false. i) Stack may be empty also in some cases ii) Stack follows FIFO concept.		1. True, True 2. True, False 3. False, True 4. False, False
State true or false. i) The degree of root node is always zero. ii) Nodes that are not root and not leaf are called as internal nodes.		1. True, True  2.True, False  3.False, True 4. False, False
STATE WHETHER THE FOLLOWING STATEMENTS ABOUT THE CONSTRUCTOR ARE TRUE OR FALSE. I) CONSTRUCTORS SHOULD BE DECLARED IN THE PRIVATE SECTION. II) CONSTRUCTORS ARE INVOKED AUTOMATICALLY WHEN THE OBJECTS ARE CREATED.	1. TRUE, TRUE 2. TRUE, FALSE 3. FALSE,TRUE 4.FALSE,FALSE	
Storing natural joins of base relations leads to	1. insert anomalies 2. select anomalies 3. delete anomalies 4. update anomalies	
struct node { int data; struct node *next; }*start = NULL; Consider the above representation and predict what will be printed on the screen by following statement ? start->next->data	1. None of these 2. Access the "data" field of 2nd node 3. Access the "data" field of 3rd node 4. Access the "data" field of 1st node	

# Comprehensive Question Preview

Structure is basically	<ol style="list-style-type: none"> <li>1. Collection of numbers only</li> <li>2. Collection of ascii values only</li> <li>3. Collection of Homogeneous data types</li> <li>4. Collection of Hetrogeneous data types</li> </ol>	
Subtraction of binary numbers can be done conveniently with	<ol style="list-style-type: none"> <li>1. high cost circuit</li> <li>2. low cost circuits</li> <li>3. complements</li> <li>4. borrows</li> </ol>	
Sum of product can be implemented with a group of	<ol style="list-style-type: none"> <li>1. NOT gates</li> <li>2. OR gates</li> <li>3. AND gates</li> <li>4. XOR gates</li> </ol>	
Supervisor state is	<ol style="list-style-type: none"> <li>1. never used</li> <li>2. entered by programs when they enter the processor</li> <li>3. required to perform any I/O</li> <li>4. only allowed to the operating system</li> </ol>	
Suppose a circular queue of capacity $(n - 1)$ elements is implemented with an array of $n$ elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are	<ol style="list-style-type: none"> <li>1. Full: <math>(\text{REAR}+1) \bmod n == \text{FRONT}</math>, empty: <math>\text{REAR} == \text{FRONT}</math></li> <li>2. Full: <math>(\text{REAR}+1) \bmod n == \text{FRONT}</math>, empty: <math>(\text{FRONT}+1) \bmod n == \text{REAR}</math></li> <li>3. Full: <math>\text{REAR} == \text{FRONT}</math>, empty: <math>(\text{REAR}+1) \bmod n == \text{FRONT}</math></li> <li>4. Full: <math>(\text{FRONT}+1) \bmod n == \text{REAR}</math>, empty: <math>\text{REAR} == \text{FRONT}</math></li> </ol>	
Suppose each set is represented as a linked list with elements in arbitrary order. Which of the operations among union, intersection, membership, cardinality will be the slowest?	<ol style="list-style-type: none"> <li>1. union only</li> <li>2. intersection, membership</li> <li>3. membership, cardinality</li> <li>4. union, intersection</li> </ol>	
Suppose only one multiplexer and one inverter are allowed to be used to implement any Boolean function of $n$ variables. What is the minimum size of the multiplexer needed?	<ol style="list-style-type: none"> <li>1.</li> </ol>	2 <sup>n</sup> line to 1 lin
Swap space exists in		

# Comprehensive Question Preview

Swapping requires a \_\_\_\_\_.

Swapping requires a \_\_\_\_\_.

Tables in second normal form (2NF):

Tables in second normal form (2NF):

The ..... policy restricts scanning to one direction only.

The ..... inherits some or all of the properties of the ..... class.

The ..... policy is to select the disk I/O request that requires the least movement of the disk arm from its current position.

# Comprehensive Question Preview

The \_\_\_\_\_ must design and program the overlay structure.

The \_\_\_\_\_ swaps processes in and out of the memory.

The address of a page table in memory is pointed by

The address of a page table in memory is pointed by

The advantage of optimistic locking is that:

The arrays has one of the following

The Average case occur in linear search algorithm

# Comprehensive Question Preview

The base register is also known as the :

The basic logic gate whose output is the complement of the input is the:

The binary representation of BCD number 00101001 (decimal 29) is

The binary-coded decimal (BCD) system can be used to represent each of the 10 decimal digits as:

The Boolean expression for a 3-input AND gate is \_\_\_\_\_.

The Boolean expression for a 3-input OR gate is \_\_\_\_\_.

The candidate keys that are not selected as the Primary key are known as \_\_\_\_\_.

The cin is

# Comprehensive Question Preview

The complexity of linear search algorithm is

THE COPY CONSTRUCTOR

The data structure required to check whether the parenthesis in an expression are balanced is \_\_\_\_\_

The database environment has all of the following components except:

The DBMS language component which can be embedded in a program is

The decimal equivalent of the excess-3 number 110010100011.01110101 is

The decimal number 10 is represented in its BCD form as



# Comprehensive Question Preview

The depth of a complete binary tree is given by

The difference between half adder and full adder is

The different classes of relations created by the technique for preventing modification anomalies are called:

The disadvantage of moving all process to one end of memory and all holes to the other direction, producing one large hole of available mem

The disk bandwidth is :

The dummy header in linked list contain \_\_\_\_\_

The EDF scheduler uses \_\_\_\_\_ to order requests according to their deadlines.

# Comprehensive Question Preview

The effect of the ROLLBACK command in a transaction is the following:

The enrolling of a database in a recovery catalog is called

The entity types are represented in ER-diagrams by \_\_\_\_.

The excess-3 code for 597 is given by

The following C function takes a singly linked list as input argument. It modifies the list by moving the last element to the front of the list and returns the modified list.

Some part of the code left blank.

```
typedef struct node
{
    int value;
    struct node* next;
}Node;
Node* move_to_front(Node* head)
{
    Node* p, *q;
    if((head==NULL) || (head->next==NULL))
        return head;
    q=NULL;
    p=head;
    while(p->next != NULL)
    {
        q=p;
        p=p->next;
    }
    return head;
}
```

# Comprehensive Question Preview

Choose the correct alternative to replace the blank line

The following C Function takes a singly- linked list of integers as a parameter and rearranges the elements of the lists. The function is called with the list containing the integers 1,2,3,4,5,6,7 in the given order. What will be the contents of the list after the function completes execution?

```
struct node{
int value;
struct node* next;
};
void rearrange (struct node* list)
{
struct node *p,q;
int temp;
if (! List || ! list->next) return;
p->list; q=list->next;
while(q)
{
temp=p->value; p->value=q->value;
q->value=temp;p=q->next;
q=p?p->next:0;
}
}
```

The following function reverse() is supposed to reverse a singly linked list. There is one line missing at the end of the function.

```
struct node
{
int data;
struct node* next;
};

/* head_ref is a double pointer which points to head (or start) pointer
of linked list */
static void reverse(struct node** head_ref)
{
struct node* prev = NULL;
struct node* current = *head_ref;
struct node* next;
while (current != NULL)
{
next = current->next;
current->next = prev;
prev = current;
current = next;
}
/*ADD A STATEMENT HERE*/
}
```

What should be added in place of "/\*ADD A STATEMENT HERE\*/", so that the function correctly reverses a linked list.

The following is a data structure that organizes data similar to a line in the supermarket, where the first one in line is the first one out.

The following is a linear list in which insertions and deletions are made to from either end of the structure.

The following is not the operation that can be performed on queue.

# Comprehensive Question Preview

The following postfix expression with single digit operands is evaluated using a stack  $8\ 2\ 3\ ^\wedge\ /\ 2\ 3\ *\ +\ 5\ 1\ *\ -$

The format identifier '%i' is also used for \_\_\_\_ data type?

The format used to present the logic output for the various combinations of logic inputs to a gate is called a(n):

The friend functions and the member functions of a friend class can directly access the ..... data.

The friend functions are used in situations where

The full subtractor can be implemented using

The function of a multiplexer is

# Comprehensive Question Preview

The getch() library function

The given array is arr = {1,2,3,4,5}. (bubble sort is implemented with a flag variable)The number of iterations in selection sort and bubble sort respectively are,

The given array is arr = {1,2,4,3}. Bubble sort is used to sort the array elements. How many iterations will be done to sort the array with improved version?

The given array is arr = {1,2,4,3}. Bubble sort is used to sort the array elements. How many iterations will be done to sort the array?

The given array is arr = {2,3,4,1,6}. What are the pivots that are returned as a result of subsequent partitioning?

The given array is arr = {2,6,1}. What are the pivots that are returned as a result of subsequent partitioning?

The given array is arr = {3,4,5,2,1}. The number of iterations in bubble sort and selection sort respectively are,

# Comprehensive Question Preview

The global coordinator forgets about the transaction phase is called .....

The heads of the magnetic disk are attached to a \_\_\_\_ that moves all the heads as a unit.

The host controller is :

The hybrid algorithm that combines EDF with SCAN algorithm is known as :

The IC 74138 is

The IC 74151 is

The identifying relationships are displayed as \_\_\_\_ in ER-diagrams.

The inputs/outputs of an analog multiplexer/demultiplexer are:

# Comprehensive Question Preview

The K-Map for following function will have  $F(w,x,y,z) = \sum (0,1,2,4,5,6,8,9,12,13,14)$

The keyword used for structure is

The language used in application programs to request data from the DBMS is referred to as the

The library function `exit()` causes an exit from ?

The logic gate that will have HIGH or "1" at its output when any one (or more) of its inputs is HIGH is a(n):

The Memory Buffer Register (MBR)

The minimum sum-of products for the function  $f(d,e,f)=\sum(1,4,5,7)$

# Comprehensive Question Preview

The multivalued attributes are represented in ER-diagrams by \_\_\_\_.

The NAND logic gate is the same as the operation of the \_\_\_\_ gate with an inverter connected to the output.

The node where the distributed transaction originates is called the .....

The NOR logic gate is the same as the operation of the \_\_\_\_ gate with an inverter connected to the output.

The normal form that is not necessarily dependency preserving is

The number of binary trees with 3 nodes which when traversed in post order gives the sequence A,B,C is ?

The number of comparisons done in sequential search is \_

The number of the threads in the pool can be decided on factors such as :



# Comprehensive Question Preview

The operating system keeps a small table containing information about all open files called :

The operation of processing each element in the list is known as \_\_\_\_\_

The Oracle RDBMS uses the \_\_\_\_ statement to declare a new transaction start and its properties.

The output of a gated S-R flip-flop changes only if the:

The output of a NAND gate is LOW if \_\_\_\_\_.

The output of a NOR gate is HIGH if \_\_\_\_\_.

The output of an AND gate with three inputs, A, B, and C, is HIGH when \_\_\_\_\_.

The output of an OR gate with three inputs, A, B, and C, is LOW when \_\_\_\_\_

# Comprehensive Question Preview

The output of logic gate is '1' when all its inputs are at logic '0'. The gate is either

The page table contains

The pager concerns with the

The part of machine level instruction, which tells the central processor what has to be done, is

The partial key attribute is underlined with a \_\_\_\_ line.

The phenomenon of interpreting unwanted signals on J and K while Cp (clock pulse) is HIGH is called \_\_\_\_.

The post order traversal of a binary tree is DEBFCA. The pre order traversal is \_\_

# Comprehensive Question Preview

The postfix form of  $A*B+C/D$  is

The pre-order and post-order of a Binary tree generates same output. Here, the tree can have maximum of

The primary key is selected from the:

The primary use for Gray code is

The priority of a process will \_\_\_\_\_ if the scheduler assigns it a static priority.

THE PROCESS OF INITIALIZING THROUGH A COPY CONSTRUCTOR IS KNOWN AS .....

The property / properties of a database is / are :

# Comprehensive Question Preview

The property of a binary tree is \_\_

The property of transaction that persists all the crashes is

The r

The relational model is concerned with :

1. Data structure
2. Data manipulation
3. Data integrity
4. All the above

The relational model uses some unfamiliar terminology. A tuple is equivalent to a :

1. Record
2. Field
3. File
4. Database

The relationship in which an entity type participates more than once is a \_\_\_\_ relationship.

1. Recursive
2. Iterative
3. Enumerated
4. Implied

The remote backup site is sometimes called as

1. primary site
2. secondary site
3. ternary site
4. tertiary site

The result evaluating the postfix expression  $10\ 5 + 60\ 6 / * 8 -$  is \_\_\_\_\_

1. 284
2. 213
3. 142
4. 71

The set of tracks that are at one arm position make up \_\_\_\_\_.

1. Magnetic disks

# Comprehensive Question Preview

	<ol style="list-style-type: none"><li>2. Electrical disks</li><li>3. Assemblies</li><li>4. Cylinders</li></ol>
The situation in which a transaction holds a data item and waits for the release of data item held by some other transaction, which in turn waits for another transaction, is called .....	<ol style="list-style-type: none"><li>1. serialiable schedule</li><li>2. process waiting</li><li>3. concurrency</li><li>4. deadlock</li></ol>
The situation in which a transaction holds a data item and waits for the release of data item held by some other transaction, which in turn waits for another transaction, is called .....	<ol style="list-style-type: none"><li>1. serialiable schedule</li><li>2. process waiting</li><li>3. concurrency</li><li>4. deadlock</li></ol>
The situation when in a linked list START=NULL is ....	<ol style="list-style-type: none"><li>1. Underflow</li><li>2. Overflow</li><li>3. Houseful</li><li>4. Saturated</li></ol>
The size of a process is limited to the size of :	<ol style="list-style-type: none"><li>1. <b>physical memory</b></li><li>2. <b>external storage</b></li><li>3. <b>secondary storage</b></li><li>4. <b>None of these</b></li></ol>

edo operation:

The relational model feature is that there

The Storage-to-Storage instructions

# Comprehensive Question Preview

The strategy of allowing processes that are logically runnable to be temporarily suspended is called

The systematic reduction of logic circuits is accomplished by:

The term "enqueue" and "dequeue" is related to the

The term \_\_\_\_\_ is used to refer to a row.

The term m31 should be made up of at least ----- literals.

The time required for a gate or inverter to change its state is called

# Comprehensive Question Preview

The time taken for the desired sector to rotate to the disk head is called :

The time taken to move the disk arm to the desired cylinder is called the :

The transaction wants to edit the data item is called as .....

The tuples of the relations can be of \_\_\_\_\_ order

The undo operation:

The value obtained in the function is given back to main by using \_\_\_\_\_ keyword?

The way a particular application views the data from the database that the application uses is a

To avoid the race condition, the number of processes that may be simultaneously inside their critical section is

# Comprehensive Question Preview

To Delete an item from a Queue identify the correct set of statements

To enable a process to wait within the monitor,

To evaluate an expression without any embedded function calls:

To find out maximum element in a list of n numbers,one needs atleast

Tower of hanoi is an application of \_\_\_\_\_

Transaction ..... ensures that the transaction are being executed successfully.

Transaction ..... ensures that the transaction are being executed successfully.



# Comprehensive Question Preview

Transaction processing is associated with everything below except

Transaction processing is associated with everything below except

Transaction processing is associated with everything below except

Transaction processing is associated with everything below except.

Two input multiplexer would have

Two J-K flip-flops with their J-K inputs tied HIGH are cascaded to be used as counters. After four input clock pulses, the binary count is \_\_\_\_\_.

Two variables will be represented by

# Comprehensive Question Preview

User push 1 element in the stack with already five elements and whose maximum stack size is 5 then stack becomes \_\_\_\_\_.

User-defined data type can be derived by

User-Friendly Systems are:

Value of first linked list index is \_\_\_\_\_

What control signals may be necessary to operate a 1-line-to-16 line decoder?

What do arrays do?

What does inheritance allows you to do?

# Comprehensive Question Preview

**WHAT FUNCTION SHOULD ALL CLASSES HAVE?**

**WHAT HAPPENS WHEN A CLASS WITH PARAMETERIZED CONSTRUCTORS AND HAVING NO DEFAULT CONSTRUCTOR IS USED IN A PROGRAM AND WE CREATE AN OBJECT THAT NEEDS A ZERO-ARGUMENT CONSTRUCTOR?**

**What is a 'tuple'?**

**What is a array?**

**What is a memory efficient double linked list?**

**What is a randomized QuickSort?**

# Comprehensive Question Preview

**What is an external sorting algorithm?**

**What is an in-place sorting algorithm?**

**What is an internal sorting algorithm?**

**What is compaction?**

**What is data structure used in recursion**

**What is log in log based recovery system?**

**What is meant by multiple inheritance?**

# Comprehensive Question Preview

What is meant by the fan-out of a logic gate?

What is one disadvantage of an S-R flip-flop?

What is short int in C programming?

What is the advantage of bubble sort over other sorting techniques?

What is the advantage of selection sort over other sorting techniques?

What is the average case complexity of bubble sort?

What is the average case complexity of QuickSort?

# Comprehensive Question Preview

What is the average case complexity of selection sort?

What is the best case complexity of QuickSort?

What is the best case complexity of selection sort?

What is the best case efficiency of bubble sort in the improvised version?

What is the condition for a tree to be weight balanced. where  $a$  is factor and  $n$  is a node?

What is the correct way to initialize values in an array?

What is the difference between binary coding and binary-coded decimal?

# Comprehensive Question Preview

What is the disadvantage of selection sort?

What is the final value of j in the below code?

```
#include <stdio.h>
int main()
{
    int i = 0, j = 0;
    if (i && (j = i + 10))
        //do something
    ;
}
```

What is the hold condition of a flip-flop?

What is the index number of the last element of an array with 29 elements?

What is the meaning of the term "POP" in stack?

What is the meaning of the term "PUSH" in stack

What is the minimum number of gates required to implement the Boolean function  $(AB+C)$  if we have to use only 2-input NOR gates?

What is the minimum number of NAND gates required to implement a 2-input EXCLUSIVE-OR function without using any other logic gate?

# Comprehensive Question Preview

What is the most efficient way to assign or print out arrays?

What is the name given to the organized collection of software that controls the overall operation of a computer?

What is the output of following function for start pointing to first node of following linked list?

1->2->3->4->5->6

```
void fun(struct node* start)
{
    if(start == NULL)
        return;
    printf("%d ", start->data);
    if(start->next != NULL )
        fun(start->next->next);
    printf("%d ", start->data);
}
```

What is the output of the following `#include <iostream> int const s=9;int main(){ std::cout << s; return 0; }`

What is the output of the following program?

```
#include <iostream>
using namespace std;
class Box
{
    double width;
public:
    friend void printWidth( Box box );
    void setWidth( double wid );
};
void Box::setWidth( double wid )
{
    width = wid;
}
void printWidth( Box box )
{
    box.width = box.width * 2;
    cout << "Width of box : " << box.width << endl;
}
int main( )
{
    Box box;
    box.setWidth(10.0);
    printWidth( box );
}
```



# Comprehensive Question Preview

```
    return 0;
}
```

What is the output of the following program?

```
#include
using namespace std;

class sample
{
    int width, height;
public:
    void set_values (int, int);
    int area () {return (width * height);}
    friend sample duplicate (sample);
};

void sample::set_values (int a, int b)
{
    width = a;
    height = b;
}

sample duplicate (sample rectparam)
{
    sample rectres;
    rectres.width = rectparam.width * 2;
    rectres.height = rectparam.height * 2;
    return (rectres);
}

int main ()
{
    sample rect, rectb;
    rect.set_values (2, 3);
    rectb = duplicate (rect);
    cout << rectb.area();
    return 0;
}
```

What is the output of this C code?

```
#include <stdio.h>
void main()
{
    int x = 0, y = 2, z = 3;
    int a = x & y | z;
    printf("%d", a);
}
```

What is the output of this C code?

```
#include <stdio.h>
void main()
{
    int x = 1, y = 0, z = 5;
    int a = x && y && z++;
    printf("%d", z);
}
```

What is the output of this C code?

```
#include <stdio.h>
void main()
{
    int x = 1, z = 3;
    int y = x << 3;
    printf(" %d\n", y);
}
```

What is the output of this C code?

# Comprehensive Question Preview

```
#include <stdio.h>
int main()
{
    int x = 1, y = 0, z = 3;
    x > y ? printf("%d", z) : return z;
}
```

What is the output of this C code?

```
#include <stdio.h>
void main()
{
    int x = 1, y = 0, z = 5;
    int a = x && y || z++;
    printf("%d", z);
}
```

What is the output of this program?

```
#include <iostream>
using namespace std;
class Box
{
    double width;
public:
    friend void printWidth( Box box );
    void setWidth( double wid );
};
void Box::setWidth( double wid )
{
    width = wid;
}
void printWidth( Box box )
{
    box.width = box.width * 2;
    cout << "Width of box : " << box.width << endl;
}
int main( )
{
    Box box;
    box.setWidth(10.0);
    printWidth( box );
    return 0;
}
```

What is the output of this program?

```
#include <iostream>
using namespace std;
class base
{
    int val1, val2;
public:
    int get()
{
    val1 = 100;
    val2 = 300;
}
    friend float mean(base ob);
};
float mean(base ob)
{
    return float(ob.val1 + ob.val2) / 2;
}
int main()
{
    base obj;
    obj.get();
    cout << mean(obj);
    return 0;
}
```

# Comprehensive Question Preview

What is the output of this program?

```
#include <iostream>
using namespace std;
class sample
{
    int width, height;
public:
    void set_values (int, int);
    int area () {return (width * height);}
    friend sample duplicate (sample);
};
void sample::set_values (int a, int b)
{
    width = a;
    height = b;
}
sample duplicate (sample rectparam)
{
    sample rectres;
    rectres.width = rectparam.width * 2;
    rectres.height = rectparam.height * 2;
    return (rectres);
}
int main ()
{
    sample rect, rectb;
    rect.set_values (2, 3);
    rectb = duplicate (rect);
    cout << rectb.area();
    return 0;
}
```

What is the output of this program?

```
#include <iostream>
using namespace std;
class sample;
class sample1
{
    int width, height;
public:
    int area ()
    {
        return (width * height);}
    void convert (sample a);
};
class sample
{
private:
    int side;
public:
    void set_side (int a)
    {
        side = a;
    }
    friend class sample1;
};
void sample1::convert (sample a)
{
    width = a.side;
    height = a.side;
}
int main ()
{
    sample sqr;
    sample1 rect;
    sqr.set_side(6);
    rect.convert(sqr);
}
```

# Comprehensive Question Preview

```
    cout << rect.area();  
    return 0;  
}
```

What is the output of this program?

```
#include <iostream>  
using namespace std;  
int main()  
{  
    int const p = 5;  
    cout << ++p;  
    return 0;  
}
```

What is the postfix form of the following prefix  $*+ab-cd$

What is the prefix form of the following postfix  $ab+cd-*$ ?

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

What is the size of an int data type?

What is the status of the inputs  $S_0$ ,  $S_1$ , and  $S_2$  of the 74151 eight-line multiplexer in order for the output  $Y$  to be a copy of input  $I_5$ ?

What is the syntax of friend function?

# Comprehensive Question Preview

What is the syntax of inheritance of class?

What is the time complexity of inserting a node in a doubly linked list?

What is the use of full adder?

What is the use of `getchar()`?

What is the use of `putchar()`?

What is the use of status register?

What is the value of the postfix expression  $6\ 3\ 2\ 4\ +\ -\ *$ :

What is the worst case complexity of bubble sort?

# Comprehensive Question Preview

What is the worst case complexity of QuickSort?

What is the worst case complexity of selection sort?

What is true about inline functions ?

What term is used to refer to a specific record in your music database; for instance; information stored about a specific album?

What type of operation can use for the following one:  $0.0=0$ ,  $0.1=1$ ,  $1.0=1$ ,  $1.1=0$

What will be the order of execution of base class constructors in the following method of inheritance. class A: public B, public C {...};

What will be the order of execution of base class constructors in the following method of inheritance. class A: public B, virtual public C {...};

# Comprehensive Question Preview

WHAT WILL BE THE OUTPUT

```
#include <iostream>
using namespace std;
class Sand
{
public: Sand()
{
cout << "Sand ";
}
~Sand()
{
cout << "~Sand ";
}
};
A.Sand
B.~Sand
C.Sand ~Sand
D.COMPILER ERROR
```

What will be the postfix expression for following infix expression  $A/B^C \cdot D$ ?

What will happen when we use void in argument passing?

What will happen while using pass by reference?

What would be the asymptotic time complexity to add a node at the end of singly linked list, if the pointer is initially pointing to the head of the list?

What would be the asymptotic time complexity to insert an element at the second position in the linked list?

# Comprehensive Question Preview

When "Underflow" situation happens in stack"?

When a deadlock is detected, recovery is normally accomplished by

When a member function is defined outside of the class declaration, the function name must be qualified with the:

When a program is abnormally terminated, the equivalent of a \_\_\_ command occurs.

When a program tries to access a page that is mapped in address space but not loaded in physical memory, then

When do status register gets updated

When high priority task is indirectly preempted by medium priority task effectively inverting the relative priority of the two tasks, the scenario is called



# Comprehensive Question Preview

When our function doesn't need to return anything means what will be the return type of the function?

When overloading unary operators using Friend function, it requires \_\_\_ argument/s.

When the body of a member function is defined inside a class declaration, it is said to be

When the head damages the magnetic surface, it is known as \_\_\_\_\_.

When the memory allocated to a process is slightly larger than the process, then :

When the recovery procedure uses \_\_\_\_, the database is immediately updated by transaction operations during the transaction's execution, even before the transaction reaches its commit point.

When the value of an attribute A is obtained from the value of an attribute B, then the attribute A is called \_\_\_\_\_.

When the values in one or more attributes being used as a foreign key must exist in another set of one or more attributes in another table, we created a(n):

# Comprehensive Question Preview

When using SQL\*Plus, Oracle commands, column names, table names and all other database elements:

When we cant perform deletion in stack?

When we cant perform insertion in stack?

When we perform  $A - B$  where the value of A and B are 5 and 10, which of the status condition gets affected?

When we perform  $a - (-b)$ , what is the actual operation done?

When you dereference an object pointer, use the

Where does the execution of the program starts?

# Comprehensive Question Preview

Which systems typically allows to replace failed disks without stopping access to the system?

Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

Which are the fundamental inputs assigned or configured in the full adder circuit ?

Which code maintains the decimal number system even after the manipulation

Which data structure is needed for circular queue concept?

Which data structure is needed to convert infix notation to postfix notation?

Which data structure is used in breadth first search of a graph to hold nodes?

Which data type is most suitable for storing a number 65000 in a 32-bit system?

# Comprehensive Question Preview

Which datastructure is used in breadth first search of a graph to hold nodes?

Which forms are based on the concept of functional dependency:

Which forms has a relation that possesses data about an individual entity:

Which forms simplifies and ensures that there is minimal data aggregates and repetitive groups:

Which function definition will run correctly?

Which is a block of Recovery Manager (RMAN) job commands that is stored in the recovery catalog?

Which is a bottom-up approach to database design that design by examining the relationship between attributes:

Which is more effective while calling the functions?

Which is the pointer associated with the availability list?

Which is true?

# Comprehensive Question Preview

Which is/are the application(s) of stack

Which keyword is used to declare the friend function?

Which method of combination circuit implementation is widely adopted with maximum output functions and minimum requirement of ICs

Which of the following accesses a variable `var` in structure, where `b` is pointer to structure

Which of the following addressing modes, facilitates access to an operand whose location is defined relative to the beginning of the data structure in which it appears?

Which of the following applications may use a stack?

Which of the following are building blocks of encoders?

# Comprehensive Question Preview

Which of the following are correct syntax to send an array as a parameter to function:

Which of the following are correct syntaxes to send an array as a parameter to function:

Which of the following are functions of Database Manager?

1. Interacting with File Manager
2. Creating Queries to Access data
3. Security Enforcement
4. Database Definition and Schema Generation

Which of the following are generated from char pointer?

Which of the following are loaded into main memory when the computer is booted?

Which of the following are(is) Language Processor(s)

Which of the following best describes how to construct a 1-line to 8-line demultiplexer from a 3-line to 8-line decoder:

Which of the following best describes the action of pulse-triggered FF's?

# Comprehensive Question Preview

Which of the following cannot be a structure member?

Which of the following conditions checks available free space in avail

Which of the following consists of the various applications and database that play a role in a backup and recovery strategy?

Which of the following correctly accesses the seventh element stored in foo, an array with 100 elements?

Which of the following correctly declares an array?

Which of the following data structures is best suited for efficient implementation of priority queues?

Which of the following deals with soft errors, such as power failures?

# Comprehensive Question Preview

Which of the following expressions is in the sum-of-products (SOP) form?

Which of the following fields in a student file can be used as a primary key?

Which of the following functions is(are) performed by the loader

Which of the following gates is described by the expression  $(ABCD)'$  ?

Which of the following gives the memory address of the first element in array foo, an array with 100 elements?

Which of the following gives the memory address of the first element in array?

Which of the following has “all-or-none” property ?



# Comprehensive Question Preview

Which of the following is not a function of DBA?

Which of the following in Object Oriented Programming is supported by Function overloading concept of C++.

Which of the following indicates the maximum number of entities that can be involved in a relationship?

Which of the following is a correct format for declaration of function?

Which of the following is a Data Model?

Which of the following is a properly defined struct?

Which of the following is a transaction?

# Comprehensive Question Preview

Which of the following is a two-dimensional array?	<ol style="list-style-type: none"><li>1. array anarray[20][20];</li><li>2. int anarray[20][20];</li><li>3. int array[20, 20];</li><li>4. char array[20];</li></ol>
Which of the following is a User-defined data type?	<ol style="list-style-type: none"><li>1. typedef int Boolean;</li><li>2. typedef enum {Mon, Tue, Wed, Thu, Fri} Workdays;</li><li>3. struct {char name[10], int age};</li><li>4. All of the mentioned</li></ol>
Which of the following is a valid inline for function foo?	<ol style="list-style-type: none"><li>1. inline void foo() {}</li><li>2. void foo() inline {}</li><li>3. inline: void foo() {}</li><li>4. None</li></ol>
Which of the following is an application of stack?	<ol style="list-style-type: none"><li>1. Web Browser</li><li>2. Text Editor</li><li>3. Infix to postfix conversion</li><li>4. all of above</li></ol>
Which of the following is an essential part of any backup system?	<ol style="list-style-type: none"><li>1. Filter</li><li>2. Security</li><li>3. Scalability</li><li>4. Recovery</li></ol>
Which of the following is an invalid BCD code?	<ol style="list-style-type: none"><li>1. 0011</li><li>2. 1101</li><li>3. 0101</li><li>4. 1001</li></ol>
Which of the following is Database Language?	<ol style="list-style-type: none"><li>1. Data Definition Language</li><li>2. Data Manipulation Language</li><li>3. Query Language</li><li>4. All of the above</li></ol>

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Which of the following is false with respect to inheritance?	<ol style="list-style-type: none"> <li>When a base class is privately inherited,onlineexam.members of the base class become private members of the derived class</li> <li>When a base class is onlineexam.y inherited,onlineexam.members of the base class becomes onlineexam.members of derived class</li> <li>When a base class is privately inherited,a private member of base class becomes private member of derived class</li> <li>When a base class is onlineexam.y inherited protected members of base class becomes protected members of derived class</li> </ol>	
Which of the following is false:	<ol style="list-style-type: none"> <li>Digital signature is used to verify that a message is authentic</li> <li>Digital certificate is issued by a third party</li> <li>Digital certificate ensures integrity of the message</li> <li></li> </ol>	Digital signature ensures non-repudiation.
Which of the following is known as memory-style error correcting-code(ECC) organization that employs parity bits?	<ol style="list-style-type: none"> <li>RAID level 1</li> <li>RAID level 2</li> <li>RAID level 3</li> <li>RAID level 4</li> </ol>	
Which of the following is not a basic Boolean operation?	<ol style="list-style-type: none"> <li>OR</li> <li>NOT</li> <li>AND</li> <li>FOR</li> </ol>	
Which of the following is not a level of data abstraction?	<ol style="list-style-type: none"> <li>Physical Level</li> <li>Critical Level</li> <li>Logical Level</li> <li>View Level</li> </ol>	
Which of the following is NOT a proper state of transaction?	<ol style="list-style-type: none"> <li>Partially aborted</li> <li>Committed</li> <li>Aborted</li> <li>Partially committed</li> </ol>	
Which of the following is not a Storage ManagerComponent?	<ol style="list-style-type: none"> <li>Transaction Manager</li> <li>Logical Manager</li> </ol>	

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	<ol style="list-style-type: none"> <li>Buffer Manager</li> <li>File Manager</li> </ol>
Which of the following is not a type of Linked List ?	<ol style="list-style-type: none"> <li>Doubly Linked List</li> <li>Singly Linked List</li> <li>Circular Linked List</li> <li>Hybrid Linked List</li> </ol>
Which of the following is not a valid declaration in C?	<ol style="list-style-type: none"> <li>short int x;</li> <li>signed short x;</li> <li>short x;</li> <li>unsigned short;</li> </ol>
Which of the following is not generally associated with flip-flops?	<ol style="list-style-type: none"> <li>Hold time</li> <li>Propagation delay time</li> <li>Interval time</li> <li>Set up time</li> </ol>
Which of the following is not layer of operating system	<ol style="list-style-type: none"> <li>Kernel</li> <li>Shell</li> <li>Application programs</li> <li>Critical Section</li> </ol>
Which of the following is not possible under any scenario?	<ol style="list-style-type: none"> <li>s1 = &amp;s2;</li> <li>s1 = s2;</li> <li>(*s1).number = 10;</li> <li>None</li> </ol>
Which of the following is not the required condition for binary search algorithm?	<ol style="list-style-type: none"> <li>The list must be sorted</li> <li>There should be the direct access to the middle element in any sublist</li> <li>There must be mechanism to delete and/or insert elements in list</li> <li>There are no constraints</li> </ol>
Which of the following is not the type of queue?	<ol style="list-style-type: none"> <li>Ordinary queue</li> <li>Single ended queue</li> <li>Circular queue</li> <li>Priority queue</li> </ol>

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Which of the following is not true about QuickSort?	<ol style="list-style-type: none"> <li>1. in-place algorithm</li> <li>2. pivot position can be changed</li> <li>3. adaptive sorting algorithm</li> <li>4. can be implemented as a stable sort</li> </ol>
Which of the following is the preferred way to recover a database after a transaction in progress terminates abnormally?	<ol style="list-style-type: none"> <li>1. Rollback</li> <li>2. Rollforward</li> <li>3. Switch to duplicate database</li> <li>4. Reprocess transactions</li> </ol>
Which of the following is TRUE ?	<ol style="list-style-type: none"> <li>1. Overlays are used to increase the size of physical memory</li> <li>2. Overlays are used to increase the logical address space</li> <li>3. When overlays are used, the size of a process is not limited to the size of the physical memory</li> <li>4. Overlays are used whenever the physical address space is smaller than the logical address space</li> </ol>
Which of the following is true about linked list implementation of queue?	<ol style="list-style-type: none"> <li>1. In push operation, if new nodes are inserted at the beginning of linked list, then in pop operation, nodes must be removed from end.</li> <li>2. In push operation, if new nodes are inserted at the end, then in pop operation, nodes must be removed from the beginning.</li> <li>3. Both of the above</li> <li>4. None of the above</li> </ol>
Which of the following is true about linked list implementation of stack?	<ol style="list-style-type: none"> <li>1. In push operation, if new nodes are inserted at the beginning of linked list, then in pop operation, nodes must be removed from end.</li> <li>2. In push operation, if new nodes are inserted at the end, then in pop operation, nodes must be removed from the beginning.</li> <li>3. None of the above</li> <li>4. Both 1 and 2</li> </ol>
Which of the following is true about linked list implementation of stack?	<ol style="list-style-type: none"> <li>1. we do not perform push operation if compiler fails to create a new node.</li> <li>2. In push operation, if new nodes are inserted at the end, then in pop operation, nodes must be removed from the beginning.</li> <li>3. None of the above</li> <li>4. Both 1 and 2</li> </ol>
Which of the following is two way list?	<ol style="list-style-type: none"> <li>1.</li> </ol>

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	grounded header list 2. circular header list 3. linked list with header and trailer nodes 4. none of above
Which of the following is two way lists?	1. Grounded header list 2. Circular header list 3. Linked list with header and trailer nodes 4. List traversed in two directions
Which of the following is used to terminate the function declaration?	1. : 2. ) 3. ; 4. none
Which of the following is/are false	1. Inheritance is deriving new class from existing class 2. In an inheritance, all data and function members of base class are derived by derived class 3. We can specify which data and function members of base class will be inherited by derived class 4. We can add new functions to derived class without recompiling the base class
Which of the following levels of abstraction involves in viewing the data	1. External level 2. Conceptual level 3. Internal level 4. Logical level
Which of the following logical operations is represented by the + sign in Boolean algebra?	1. inversion 2. AND 3. OR 4. NOT
Which of the following operations is performed more efficiently by doubly linked list than by singly linked list?	1. Deleting a node whose location in given 2. Searching of an unsorted list for a given item 3. Inverting a node after the node with given location 4. Traversing a list to process each node
Which of the following operator can be overloaded through friend function?	1. ->

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	<ol style="list-style-type: none"> <li>2.</li> <li>=</li> <li>3.</li> <li>()</li> <li>4.</li> <li>*</li> </ol>
Which of the following operator functions cannot be global, i.e., must be a member function.	<ol style="list-style-type: none"> <li>1. new</li> <li>2. delete</li> <li>3. Conversion Operator</li> <li>4. None</li> </ol>
Which of the following operator takes only integer operands?	<ol style="list-style-type: none"> <li>1. +</li> <li>2. *</li> <li>3. /</li> <li>4. %</li> </ol>
Which of the following operators should be preferred to overload as a global function rather than a member method?	<ol style="list-style-type: none"> <li>1. Postfix ++</li> <li>2. Comparison Operator</li> <li>3. Insertion Operator &lt;&lt;</li> <li>4. Prefix++</li> </ol>
<p>Which of the following overloaded functions are NOT allowed in C++?</p> <p>1) Function declarations that differ only in the return type</p> <pre>int fun(int x, int y); void fun(int x, int y);</pre> <p>2) Functions that differ only by static keyword in return type</p> <pre>int fun(int x, int y); static int fun(int x, int y);</pre> <p>3) Parameter declarations that differ only in a pointer * versus an array []</p> <pre>int fun(int *ptr, int n); int fun(int ptr[], int n);</pre> <p>4) Two parameter declarations that differ only in their default arguments</p> <pre>int fun( int x, int y); int fun( int x, int y = 10);</pre>	<ol style="list-style-type: none"> <li>1. All of the above</li> <li>2. All except 2</li> <li>3. All except 1</li> <li>4. All except 2 and 4</li> </ol>
Which of the following refers to the associative memory?	<ol style="list-style-type: none"> <li>1. the address of the data is generated by the CPU</li> <li>2. the address of the data is supplied by the users</li> <li>3. there is no need for an address i.e. the data is used as an address</li> <li>4. the data are accessed sequentially</li> </ol>
Which of the following relationships represents the dual of the Boolean property: $x + x'y = x + y$ Choose the best.	<ol style="list-style-type: none"> <li>1. <math>x'(x + y) = x'y'</math></li> </ol>

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	<ol style="list-style-type: none"> <li>2.</li> <li><math>x(x' + y) = xy</math></li> <li>3.</li> <li><math>x(1 + x') + y = xy</math></li> <li>4.</li> <li><math>x'(xy') = x'y'</math></li> </ol>
Which of the following represents number of output lines for decoder with 4 input lines?	<ol style="list-style-type: none"> <li>1.</li> <li>15</li> <li>2.</li> <li>16</li> <li>3.</li> <li>17</li> <li>4.</li> <li>18</li> </ol>
Which of the following return-type cannot be used for a function in C?	<ol style="list-style-type: none"> <li>1.</li> <li>char *</li> <li>2.</li> <li>struct</li> <li>3.</li> <li>void</li> <li>4.</li> <li>None</li> </ol>
Which of the following schema is present at highest level ?	<ol style="list-style-type: none"> <li>1.</li> <li>Physical Schema</li> <li>2.</li> <li>Sub-Schema</li> <li>3.</li> <li>None of these</li> <li>4.</li> <li>Logical Schema</li> </ol>
Which of the following searching techniques do not require the data to be in sorted form	<ol style="list-style-type: none"> <li>1.</li> <li>Binary Search</li> <li>2.</li> <li>Interpolation Search</li> <li>3.</li> <li>Linear Search</li> <li>4.</li> <li>Exhaustive Search</li> </ol>
WHICH OF THE FOLLOWING STATEMENT IS CORRECT?	<ol style="list-style-type: none"> <li>1.</li> <li>CONSTRUCTOR HAS THE SAME NAME AS THAT OF THE CLASS.</li> <li>2.</li> <li>DESTRUCTOR HAS THE SAME NAME AS THAT OF THE CLASS WITH A TILDE SYMBOL AT THE BEGINNING.</li> <li>3.</li> <li>BOTH A AND B.</li> <li>4.</li> <li>DESTRUCTOR HAS THE SAME NAME AS THE FIRST MEMBER FUNCTION OF THE CLASS.</li> </ol>
Which of the following statement is false?	<ol style="list-style-type: none"> <li>1.</li> <li>Arrays are dense lists and static data structure</li> <li>2.</li> <li>data elements in linked list need not be stored in adjacent space in memory</li> <li>3.</li> <li>pointers store the next data element of a list</li> <li>4.</li> <li>linked lists are collection of the nodes that contain information part and next pointer</li> </ol>
Which of the following statement is false?	<ol style="list-style-type: none"> <li>1.</li> </ol>



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	<p>stack can be implemented in either static allocation and dynamic allocation</p> <p>2. stack can be implemented in either static allocation and nor dynamic allocation</p> <p>3. stack can be implemented only in static allocation and not in dynamic allocation</p> <p>4. stack can be implemented in dynamic allocation</p>
Which of the following statements about linked list data structure is/are TRUE?	<p>1. Addition and deletion of an item to/ from the linked list require modification of the existing pointers</p> <p>2. The linked list pointers do not provide an efficient way to search an item in the linked list</p> <p>3. Linked list pointers always maintain the list in ascending order</p> <p>4. The linked list data structure provides an efficient way to find kth element in the list</p>
Which of the following statements about queues is incorrect?	<p>1. Queues are first-in, first-out (FIFO) data structures</p> <p>2. Queues can be implemented using arrays</p> <p>3. Queues can be implemented using linked lists</p> <p>4. New nodes can only be added at the front of the queue</p>
<p>WHICH OF THE FOLLOWING STATEMENTS ARE NOT TRUE ABOUT DESTRUCTOR?</p> <p>1. IT IS INVOKED WHEN OBJECT GOES OUT OF THE SCOPE</p> <p>2. LIKE CONSTRUCTOR, IT CAN ALSO HAVE PARAMETERS</p> <p>3. IT CAN BE VIRTUAL</p> <p>4. IT CAN BE DECLARED IN PRIVATE SECTION</p> <p>5. IT BEARS SAME NAME AS THAT OF THE CLASS AND PRECEDES LAMBDA SIGN.</p>	<p>1. Only 2, 3, 5</p> <p>2. Only 2, 3, 4</p> <p>3. Only 2, 4, 5</p> <p>4. Only 3,4,5</p>
Which of the following statements are true?	<p>1. Database must contain two or more tables</p> <p>2. Database must contain two data tables</p> <p>3. Database must contain at least one data table</p> <p>4. Database must contain one data table</p>
Which one is a TRUE statement?	<p>1. With finer degree granularity of locking a high degree of concurrency is possible</p> <p>2. Locking prevents non-serializable schedule</p> <p>3. Locking cannot take place at level</p> <p>4. An exclusive lock on data item X is granted even if a shared lock is already held on X</p>
Which one is an alternative of log based recovery?	<p>1. Disk recovery</p> <p>2. Dish shadowing</p>

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	<ol style="list-style-type: none"> <li>Shadow paging</li> <li>Crash recovery</li> </ol>
Which one of the following is an application of Queue Data Structure?	<ol style="list-style-type: none"> <li>When a resource is shared among multiple consumers.</li> <li>When data is transferred asynchronously (data not necessarily received at same rate as sent) between two processes</li> <li>Load Balancing</li> <li>All of the above</li> </ol>
Which one of the following is an application of Stack data structure?	<ol style="list-style-type: none"> <li>Managing function calls</li> <li>Arithmetic expression evaluation</li> <li>The stock span problem</li> <li>All of the above</li> </ol>
Which one of the following is an application of Stack Data Structure?	<ol style="list-style-type: none"> <li>PUSH</li> <li>POP</li> <li>Recursion</li> <li>Array</li> </ol>
Which one of the following is the address generated by CPU?	<ol style="list-style-type: none"> <li>physical address</li> <li>absolute address</li> <li>logical address</li> <li>none of the mentioned</li> </ol>
Which properly declares a variable of struct foo?	<ol style="list-style-type: none"> <li>struct foo</li> <li>int foo</li> <li>foo var</li> <li>foo</li> </ol>
Which SQL statement is used to insert new data in a database?	<ol style="list-style-type: none"> <li>Add new</li> <li>Insert new</li> <li>Add record</li> <li>Insert into</li> </ol>
Which statement is true:	<ol style="list-style-type: none"> <li>All canonical form are standard form</li> <li>All standard form are canonical forms</li> <li>Standard form must consists of minterms</li> <li></li> </ol>

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	Canonical form can consist of a term with a literal missing
Which symbol is used to create multiple inheritance?	<ol style="list-style-type: none"> <li>1. Dot</li> <li>2. Comma</li> <li>3. Dollar</li> <li>4. None</li> </ol>
Which-one of the following statements about normal forms is FALSE?	
While overloading binary operators using member function, it requires ___ argument/s.	<ol style="list-style-type: none"> <li>1. Zero</li> <li>2. One</li> <li>3. Two</li> <li>4. Three</li> </ol>
Who is responsible for keeping database in consistent state despite system failure?	<ol style="list-style-type: none"> <li>1. End User</li> <li>2. Content Developer</li> <li>3. Transaction Manager</li> <li>4. Storage Manager</li> </ol>
Why can a CMOS IC be used as both a multiplexer and a demultiplexer?	<ol style="list-style-type: none"> <li>1. It cannot be used as both.</li> <li>2. CMOS uses bidirectional switches</li> <li>3. CMOS uses unidirectional Switch</li> <li>4. CMOS is used for different purpose.</li> </ol>
Why is a demultiplexer called a data distributor?	<ol style="list-style-type: none"> <li>1. The input will be distributed to one of the outputs.</li> <li>2. One of the inputs will be selected for the output.</li> <li>3. The output will be distributed to one of the inputs.</li> <li>4. Demultiplexer</li> </ol>
Why is the Gray code more practical to use when coding the position of a rotating shaft?	<ol style="list-style-type: none"> <li>1. All digits change between counts</li> <li>2. Two digits change between counts</li> <li>3. Only one digit changes between counts</li> <li>4. None of the Mentioned</li> </ol>
Why would you want to use inline functions?	<ol style="list-style-type: none"> <li>1. To decrease the size of the resulting program</li> <li>2. To increase the speed of the resulting program</li> <li>3. To simplify the source code file</li> <li>4. To remove unnecessary functions</li> </ol>

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With regard to a D latch, _____.	<ol style="list-style-type: none"> <li>the Q output follows the D input when EN is LOW</li> <li>the Q output is opposite the D input when EN is LOW</li> <li>the Q output follows the D input when EN is HIGH</li> <li>the Q output is HIGH regardless of EN's input state</li> </ol>
without the carry bit if add the numbers 1 and 1 what will be the output?	<ol style="list-style-type: none"> <li>1</li> <li>0</li> <li>error</li> <li>none of the above</li> </ol>
Working set model for page replacement is based on the assumption of	<ol style="list-style-type: none"> <li>modularity</li> <li>locality</li> <li>globalization</li> <li>random access</li> </ol>
Write the output of the following <code>#include &lt;iostream&gt;int main(){ const int x; x = 10; printf("%d", x); return 0;}</code>	<ol style="list-style-type: none"> <li>0</li> <li>10</li> <li>Compile time Error</li> <li>Runtime Error</li> </ol>
Write the output of the following program.  <pre> class Test {     int x; }; int main() {     Test t;     cout &lt;&lt; t.x;     return 0; } </pre>	<ol style="list-style-type: none"> <li>0</li> <li>some garbage value</li> <li>compile time error</li> <li>1</li> </ol>
Write the output of the following <pre> #include &lt;iostream&gt; using namespace std; class B; class A {     int a; public:     A():a(0) {}     void show(A&amp; x, B&amp; y); };  class B { private:     int b; public:     B():b(0) {}     friend void A::show(A&amp; x, B&amp; y); }; </pre>	<ol style="list-style-type: none"> <li>Compiler Error</li> <li>A::a=10 B::b=0</li> <li>A::a=0 B::b=0</li> <li>None</li> </ol>

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<pre>void A::show(A&amp; x, B&amp; y) {     x.a = 10;     cout &lt;&lt; "A::a=" &lt;&lt; x.a &lt;&lt; " B::b=" &lt;&lt; y.b; }  int main() {     A a;     B b;     a.show(a,b);     return 0; }</pre>	
<p><math>X+0=0+X=X</math> is an example of</p>	<ol style="list-style-type: none"><li>1. commutative property</li><li>2. inverse property</li><li>3. associative property</li><li>4. Identity element</li></ol>
<p>.....defines the structure of a relation which consists of a fixed set of attribute-domain pairs.</p>	<ol style="list-style-type: none"><li>1. Instance</li><li>2. Schema</li><li>3. Program</li><li>4. Super Key</li></ol>