| Name: <br> Enrolment No: | UNIVERSITY OF PETROLEUM AND ENERGY STUDIES <br> End Semester Examination, July 2020 |  |
| :--- | :--- | :--- |
| UNIVERITY with A PURPOSE |  |  |
| Course Code \& Name: CSEG1004 - Advanced Data Structures | Semester: II |  |
| Programme: B.Tech. CSE (CSF) | Time: <br> Max. |  |

## Test Canvas: End Semester Exam

The Test Canvas lets you add, edit and reorder questions, as well as review a test. More Help

You can edit, delete or change the point values of test questions on this page. If necessary, test attempts will be regraded after you submit your changes.

| Description | The Examination has 60 Questions of 2 marks each. Answer ALL the questions. <br> Total Duration: 120 min. |
| :--- | :--- |
| Instructions |  |
| Total Questions | 60 |
| Total Points | 120 |
| Number of Attempts 104 |  |

Select: All None Select by Type: - Question Type - V


Source Pool: ESE Module-1 (CO1)
Question All Pool Questions
Types:
Preview questions that match selected criteria

Question Display Page 1 of 2
https://learn.upes.ac.in/webapps/assessment/do/content/assessment?action=MODIFY\&course_id=_36724_1\&content_id=_1746694_1\&assessment... 1/24

|  | Question Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | Question Text: <br> A class cannot be | Alignment Count: 0 |
| Details: | Multiple Choice | Question Text: <br> Objects of the same class share the values of $\qquad$ and maintain separate values of $\qquad$ - | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Static Member Function | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which statement is appropriate for a friend function? | Alignment Count: 0 |
| Details: | Multiple Choice | Question Text: <br> Identify the correct sentence regarding inequality between reference and pointer. | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ operator has right to left associativity. | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ operator has the highest precedence. | Alignment <br> Count: 0 |
| Details: | Multiple Choice | Question Text: <br> Choose the output of the following program. <br> \#include <iostream> <br> using namespace std; <br> int main() <br> $\{$ <br> int $a=5, b=6, c, d$; <br> $c=a, b ;$ <br> $d=(a, b) ;$ <br> cout $\ll c \ll ", \quad \ll d$; <br> return 0; <br> $\}$ | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which looping process is best used when the number of iterations is known? | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ is used as string append operator. | Alignment <br> Count: 0 |


|  | Questi <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: | Multiple Choice | ```Question Text: What is the output of the following program? #include <iostream> #include <string> using namespace std; int main () { string str ("Microsoft"); for (size_t i = 0; i < str.length();) { cout << str.at(i++); } return 0; }``` | Alignment Count: 0 |
| Details: $\square$ | Multiple <br> Choice | Question Text: <br> What is the output of the following program? ```#include <iostream> #include <string> using namespace std; int main() { string str ("Southern-Delight"); cout << str.substr(4).substr(6) << endl; return 0; }``` | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Copy constructor $\qquad$ | Alignment <br> Count: 0 |



|  | Questi <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | ```Question Text: What will be the output of the following program: #include<iostream> using namespace std; class Student{ string dept; public: Student(){ dept = "CSF"; } void display(){ cout<<dept; } }; int main(){ Student stud1; Student stud2 = stud1; stud2.display(); return 0; }``` | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which of the following constructors are provided by the $\mathrm{C}++$ compiler if not defined in a class? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> When a copy constructor is called? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> What will be the output of the following $\mathrm{C}++$ code? <br> \#include <iostream> <br> using namespace std; <br> class A\{ <br> public: <br> int a; <br> \}; <br> int main(int $\operatorname{argc}$, char const *argv[]) <br> \{ ```A a1 = {10}; A a2 = a1; cout<<a1.a<<a2.a; return 0;``` | Alignment <br> Count: 0 |


|  | Questi <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple <br> Choice | ```Question Text: What will be the output of the following C++ code? #include <iostream> using namespace std; class A{ A(){ cout<<"A's Constructor called\n"; } friend class B; }; class B{ public: A a; B(){ cout<<"B's constructor called\n"; } }; int main(int argc, char const *argv[]) { B b; return 0; }``` | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> In which type do the enumerators are stored by the compiler? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | ```Question Text: What will be the output of the following C++ code? #include <iostream> using namespace std; enum cat { temp = 7 }; int main() { int age = 14; age /= temp; cout << "If you were cat, you would be " << age << endl; return 0; }``` | Alignment <br> Count: 0 |


$\rightarrow$ Question Display $\Downarrow \quad$ Page-1 of $2 \ggg \ggg$

| Total | 24 | Total Points: 24 |
| :--- | :--- | :--- |
| Questions: |  |  |
| Number of  <br> Questions to 12 <br> display:  <br> Source Pool: ESE Module-2 (CO2) |  |  |
| Question All Pool Questions <br> Types:  |  |  |

- Preview questions that match selected criteria

| $\rightarrow$ Questio | D Display |  |  |
| :---: | :---: | :---: | :---: |
|  | Questio <br> Type | Question Text | Alignment Count |
| Details: | Multiple Choice | Question Text: <br> If a base class member access is public and an inherited class access specifier is private, which of the following statement is true? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Choose most appropriate statement | Alignment <br> Count: 0 |
| Details: | Multiple Choice | Question Text: <br> When a base class pointer points to derived class object? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which of the following operators cannot be overloaded? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ operator is overloaded by default by the compiler in every user defined classes even if user has not written. | Alignment <br> Count: 0 |
| Details: | Multiple Choice | Question Text: <br> Not everything can be overloaded using a friend function. Operator (s) like $\qquad$ must be overloaded as member functions because the language requires them to be. | Alignment <br> Count: 0 |
| Details: | Multiple Choice | Question Text: <br> Not everything can be overloaded using a member function. Operator (s) like $\qquad$ must be overloaded using friend function method. | Alignment <br> Count: 0 |


|  | Question Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | Question Text: <br> What is the advantage of exception handling? <br> (a)Remove error-handling code from the software's main line of code. <br> (b)A method writer can choose to handle certain exceptions and delegate others to the caller. <br> (c)An exception that occurs in a function can be handled anywhere in the function call stack. | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> What should be put in a try block? <br> (a) Statements that might cause exceptions <br> (b) Statements that should be skipped in case of an exception | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ is return type of is_open() function. | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> To create an output stream, we must declare the stream to be of class $\qquad$ . | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which of the following is not used to seek a file pointer? | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: $\qquad$ is the default mode of the opening using the fstream class. | Alignment Count: 0 |
| Details: | Multiple Choice | Question Text: <br> What is the output of the following program? <br> \#include<iostream> <br> using namespace std; <br> class base \{ <br> int arr[10]; <br> \}; <br> class b1: virtual public base \{ \}; <br> class b2: virtual public base \{ \}; <br> class b3: public base \{ \}; <br> class b4: public base \{ \}; <br> class derived1: public b1, public b2 $\}$; <br> class derived2: public b3, public b4 \{\}; <br> int main(void) \{ <br> cout << sizeof(derived1) << ',' << sizeof(derived2); <br> return 0; <br> \} | Alignment Count: 0 |


|  | Questi <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | ```Question Text: What is the output of the following program? #include<iostream> using namespace std; class P { public: void print() { cout <<"Inside P "; } }; class Q : public P { public: void print() { cout <<"Inside Q"; } }; class R: public Q { }; int main(void) { Rr; r.print(); return 0; }``` | Alignment <br> Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> What is the output of the following program? <br> \#include<iostream> <br> using namespace std; ```class Base { protected: int i, j; public: Base(int _i = 0, int _j = 0): i(_i), j(_) { } };``` class Derived: public Base \{ public: void show()\{ cout<<i<<','<<<j; \} \}; int main(void) \{ Derived d; d.show(); return 0; | Alignment <br> Count: 0 |



|  | Questi <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | ```Question Text: What is the output of the following program? #include<iostream> using namespace std; class Base { public: int fun() { cout << "Base::fun() called"; } int fun(int i) { cout << "Base::fun(int i) called: " << i; } }; class Derived: public Base { public: int fun(int i) { cout << "Derived::fun(int i) called:" << i; } }; int main() { Derived d; d.Base::fun(5); return 0; }``` | Alignment Count: 0 |


|  | Ques <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | ```Question Text: What is the output of the following program? #include <iostream> using namespace std; class Base { public: virtual string print() { return "Base class "; } }; class Derived : public Base { public: virtual string print() { return "Derived class "; } }; void describe(Base p) { cout << p.print() << endl; } int main() { Base b; Derived d; describe(b); describe(d); return 0; }``` | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> What is the output of the following program? <br> \#include<iostream> <br> using namespace std; ```int fun(int x=20, int y = 20, int z) { return (x + y + z); } int main() { cout << fun(10); return 0; }``` | Alignment <br> Count: 0 |


|  | Questio <br> Type | Question Text | Alignment Count |
| :---: | :---: | :---: | :---: |
| Details: $\square$ | Multiple Choice | Question Text: <br> Which of the following overloaded functions are NOT allowed in C++? <br> 1) Function declarations that differ only in the return type int fun(int $x$, int $y$ ); <br> void fun(int $x$, int $y$ ); <br> 2) Functions that differ only by static keyword in return type int fun(int $x$, int $y$ ); <br> static int fun(int $x$, int $y$ ); <br> 3) Parameter declarations that differ only in a pointer * versus an array [] <br> int fun(int *ptr, int n); <br> int fun(int ptr[], int n); <br> 4) Two parameter declarations that differ only in their default arguments <br> int fun( int $x$, int $y$ ); <br> int fun( int $x$, int $y=10$ ); | Alignment Count: 0 |
| Details: $\square$ | Multiple Choice | Question Text: <br> What is the output of the following program? <br> \#include<iostream> <br> using namespace std; ```class Test { int x; public: Test (int i):x(i) { } void fun() const { cout << (x+10) << endl; } void fun() { cout << X << endl; } }; int main() { const Test obj(20); obj.fun(); return 0; }``` | Alignment <br> Count: 0 |

## Type

```
Alignment

\section*{\#include<iostream>}
``` using namespace std;
class Base {};
class Derived: public Base {};
int main()
{
            Derived d;
    try {
            throw d;
            cerr << "Exception Handling";
        }
    catch(Base b) {
                cout<<"Caught Base Exception";
    }
    catch(Derived d) {
            cout<<"Caught Derived Exception";
        }
        return 0;
}
Details:
```



```
Multiple
Question Text:
Alignment
Choice What is the output of the following program? \#include <iostream> using namespace std;
int main()
\{
try
\{
throw 10;
cout << "Exception";
\}
catch (...)
\{
cout << "default exception";
\}
catch (int param)
\{
        cout << "int exception";
    }
    return 0;
}

- Preview questions that match selected criteria
\begin{tabular}{|c|c|c|c|}
\hline & Question Type & Question Text & Alignment Count \\
\hline Details: \(\square\) & True / False & \begin{tabular}{l}
Question Text: \\
Extendible Hashing is a Direct Addressing Scheme.
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Size of the table ( m ) must be a \(\qquad\) number to obtain more even distribution of the keys over the table.
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
When Load factor \(>0.5\), \(\qquad\) hashing scheme is preferred.
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Which data structure is preferred for speedy insertion, deletion and lookup of elements?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Worst case insertion, deletion and lookup times of hash tables using linear probing and separate chaining methods are \(\qquad\)
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
A BST has numbers between 1 and 1000. Which of the following sequence could not be the sequence of the node examined to search for the number 363 ?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & True / False & \begin{tabular}{l}
Question Text: \\
An extended binary tree is a binary tree in which special nodes are added wherever a null subtree was present in the original tree so that each node in the original tree (except the root node) has degree two.
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Consider heap tree of height \(h\). The minimum number of elements in a heap is \(\qquad\) .
\end{tabular} & Alignment Count: 0 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline & \begin{tabular}{l}
Questio \\
Type
\end{tabular} & \(n\) Question Text & Alignment Count \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Difference between the internal and external path length of a binary tree with n internal nodes is?
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Generate a BST by inserting in order the following integers: 50, 15, \(62,5,20,58,91,3,8,37,60,24\). Number of nodes in the left subtree and right sub-tree of the root is
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
If \(h\) is the height of a BST, considering the height of the tree as the no. of edges in the longest path from root to the leaf, the maximum no. of nodes possible in the tree is?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
If n elements are sorted in a balanced BST, what would be the asymptotic complexity to search a key in the tree?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
In a threaded binary tree every node that does not have left child has a thread to its
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Number of external nodes in a full binary tree with n internal nodes is?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
The Postorder Traversal pattern for a BST is \(0,2,4,6,5,3,1,8\), \(10,9,7\). Find the inorder traversal pattern.
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
The number of nodes of degree 2 in a Binary tree with \(n\) leaf nodes is
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
The run time for traversing all the nodes of a BST with \(n\) nodes and printing them in an order is
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
When a BST node having two children is deleted, it is replaced by its
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & Question Text:
\(\qquad\) traversal of BST outputs the elements of the tree in sorted order? & Alignment Count: 0 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline & \begin{tabular}{l}
Questi \\
Type
\end{tabular} & \multicolumn{2}{|l|}{Question Text} & Alignment Count \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{3}{|l|}{\begin{tabular}{ll} 
Question Text: & Alignment \\
In full BST every internal node has exactly two children. If there & Count: 0 \\
are 100 leaf nodes in the tree, how many internal nodes are there & \\
in the tree? &
\end{tabular}} \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{3}{|l|}{\begin{tabular}{l}
Question Text: \\
The Preorder Traversal pattern for a BST is \(7,1,0,3,2,5,4,6,9\), Count: 0 8, 10. Find the inorder traversal pattern.
\end{tabular}} \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{3}{|l|}{\begin{tabular}{ll} 
Question Text: & Alignment \\
When a binary tree is converted into an extended binary tree, all & Count: 0 \\
the nodes of a binary tree in the external node becomes &
\end{tabular}} \\
\hline \multicolumn{5}{|l|}{\(\xrightarrow{\rightarrow}\) Question Display \(\approx\)} \\
\hline \multicolumn{3}{|r|}{Displaying 1 to 22 of \(\mathbf{2 2}\) items} & Show All & Edit Paging... \\
\hline
\end{tabular}
\begin{tabular}{lll}
\hline Total & 20 & Total Points: 24 \\
Questions: & & \\
\begin{tabular}{l} 
Number of \\
Questions to \\
display:
\end{tabular} & 12 & \\
\begin{tabular}{ll} 
Source Pool: & ESE Module-4 (CO4) \\
Question & All Pool Questions \\
Types: &
\end{tabular} & \\
\hline
\end{tabular}
* Preview questions that match selected criteria

\(\left.\begin{array}{lllll} & \begin{array}{ll}\text { Question } \\ \text { Type }\end{array} & \text { Question Text } & \text { Alignment } \\ \text { Count }\end{array}\right]\)
\begin{tabular}{|c|c|c|c|}
\hline & Question Type & Question Text & Alignment Count \\
\hline Details: \(\square\) & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Which of the following is most appropriate to represent an AVL tree?
\end{tabular} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & Question Text:
\(\qquad\) is used to implement a descending Priority Queue. & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & Question Text:
\(\qquad\) can be used to implement Selection Sort. & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Which one of the given array elements represents a binary min heap?
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
int \(a[8]=\{5,7,9,1,3,10,8,4\}\). \\
Identify the level order traversal sequence of elements obtained after inserting all the array elements in a min-heap.
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & Question Text:
\(\qquad\) tree need not be a Binary tree. & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
"For every node \(Z\) with a parent \(A\), the key in \(A\) is less than or equal to the key in Z." \\
The above statement is true for \(\qquad\) tree.
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
We are in the process of sorting the 7 elements of the given complete Binary Tree using Heap Sort algorithm. After completion of some maxheapify operations, the level order traversal looks like: \(16,14,15,10,12,27,28\). \\
Find out how many maxheapify operations have been performed on root of heap?
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
A 3-ary max heap is like a binary max heap, but instead of 2 children, nodes have 3 children. A 3-ary heap can be represented by an array using level order traversal as follows: The root is stored in the first location, \(a[0]\), nodes in the next level, from left to right, is stored from \(\mathrm{a}[1]\) to \(\mathrm{a}[3]\). The nodes from the second level of the tree from left to right are stored from \(\mathrm{a}[4]\) location onward. An item \(x\) can be inserted into a 3-ary heap containing \(n\) items by placing \(x\) in the location \(a[n]\) and pushing it up the tree to satisfy the heap property. Which one of the following is a valid sequence of elements in an array representing 3-ary max heap?
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline
\end{tabular}

\section*{49-60. SRandom Block}

Total
23
Questions:
Number of
Questions to
display:
Source Pool:
ESE Module-5 (CO5)
Question All Pool Questions
Types:
* Preview questions that match selected criteria

\begin{tabular}{|c|c|c|c|}
\hline & Question Type & Question Text & Alignment Count \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Minimum number of edges in a Graph is
\end{tabular} & Alignment Count: 0 \\
\hline Details: & True / False & \begin{tabular}{l}
Question Text: \\
Parallel edges in a graph produce identical columns in its adjacency matrix
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & Question Text: Space complexity for an adjacency matrix representation of a graph is & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
The depth first traversal of a graph is analogous to \(\qquad\) traversal pattern in trees.
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
The supporting data structure used for Depth first traversal and Breadth first traversal of a graph is
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
There are 10 nodes without any self loops and multiedges. The maximum number of edges of a directed and undirected graph is
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Time Complexity for an edge list representation of a graph is
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Web Crawling is an example of
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
Which of the statement(s) is/are correct.
\end{tabular} & Alignment Count: 0 \\
\hline Details: & Multiple Choice & Question Text:
\(\qquad\) is an application of Directed Graph and \(\qquad\) is an application of Undirected Graph. & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & Question Text:
\(\qquad\) is preferred over adjacency matrix representation of a graph when the graph is \(\qquad\) & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: & Multiple Choice & \begin{tabular}{l}
Question Text: \\
A graph represented using a \(\qquad\) has a minimum time cost for search, insert and delete operations.
\end{tabular} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \begin{tabular}{l}
Quest \\
Type
\end{tabular} & \multicolumn{5}{|c|}{Question Text} & Alignment Count \\
\hline Details: \(\square\) & \begin{tabular}{l}
True / \\
False
\end{tabular} & \multicolumn{5}{|l|}{\begin{tabular}{l}
Question Text: \\
From a reduced Incidence matrix a complete Incidence matrix can be created by adding a row with cells containing \(+1,0\), or -1 such that sum of elements in the row is equal to zero.
\end{tabular}} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{5}{|l|}{\begin{tabular}{l}
Question Text: \\
Given graph \(\mathrm{G}=(\mathrm{V}, \mathrm{E})\) where \(\mathrm{V}=\{\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}\}\) and \(\mathrm{E}=\{(\mathrm{A}\), D), (B, A), (B, C), (C, D), (C, F), (C, G), (E, C), (E, D), (F, A), (F, E), (G, B) \}. \(\qquad\) is the BFS pattern when starting at node B.
\end{tabular}} & Alignment Count: 0 \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{5}{|l|}{\begin{tabular}{l}
Question Text: \\
Given graph \(\mathrm{G}=(\mathrm{V}, \mathrm{E})\) where \(\mathrm{V}=\{\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}\}\) and \(\mathrm{E}=\{(\mathrm{A}\), D), (B, A), (B, C), (C, D), (C, F), (C, G), (E, C), (E, D), (F, A), (F, E), (G, B) \}. \(\qquad\) edge (s) is unused during the DFS traversal starting at node \(B\).
\end{tabular}} & \begin{tabular}{l}
Alignment \\
Count: 0
\end{tabular} \\
\hline Details: \(\square\) & Multiple Choice & \multicolumn{5}{|l|}{\begin{tabular}{l}
Question Text: \\
In a graph if an edge is defined as \(E=\{u, v\}\), it means
\end{tabular}} & Alignment Count: 0 \\
\hline \(\rightarrow\) Question & n Display & & & & & & \\
\hline \multicolumn{5}{|r|}{Displaying 1 to 23 of \(\mathbf{2 3}\) items} & Show All & \multicolumn{2}{|l|}{Edit Paging...} \\
\hline \multicolumn{3}{|l|}{Select: All None Select by Type:} & - Question Type - V & & & & \\
\hline Delete and Reg & & & Update and Regrade & \multicolumn{3}{|l|}{Hide Question Details} & \\
\hline
\end{tabular}```

