Question **8**

Correct

Marked out of 25.00

Given three sorted arrays in ascending order, write a function **int* findUncommon(int arr1[], int arr2[], int arr3[], int arr1Length, int arr2Length, int arr3Length)** that **creates a combined array of unique elements in ascending order** and returns it. The arr1Length is the length of arr1, arr2Length is the arr2 and arr3Length is the arr3.

Example:

Input:
arr1 = {1,3,5,7} , arr2 = {1,3,5,8}, arr3 = {1,3,10}
arr1Length = 4, arr2Length = 4, arr3Length = 3

Output: {7,8,10}

Answer: (penalty regime: 0 %)

```
28          i++;
29          k++;
30      }
31      else if (i<a && j<b  &&k<c &&
32      a1[i]<a2[j] && a1[i]<a3[k])
33      {
34          ar[l++]=a1[i];
35          i++;
36      }
37      else if (i<a && j<b  &&
38      k<c && a2[j]<a3[k] && a2[j]<a1[i]){
39          ar[l++]=a2[j++];
40      }
41       else if ( j<b  &&
42      k<c && a2[j]<a3[k]){
43          ar[l++]=a2[j++];
44      }
45      else  if (k<c)
46      {
47          ar[l++]=a3[k];
48          k++;
```

	Test	Expected

	int arr1[3]={10,20,30};
	int arr2[3]={20,25,30};
	int arr3[2]={40,50};
	int* result = findUncommon(arr1,arr2,arr3,3,3,2);
	printArray(result, 4);
		10 25 40 50

	Test	Expected

	int arr1[5]={-5,-1,0,4,5};
	int arr2[2]={-5,25};
	int arr3[2]={-1,45};
	int* result=findUncommon(arr1,arr2,arr3,5,2,2);
	printArray(result, 5);
		0 4 5 25 45

Passed all tests!

Question **9**

Incorrect

Marked out of 30.00

Given the two strings, write a function **char* longestCommonSubstring(char str1[], char str2[])**that **returns the longest matching substring among the two strings**

Example:
Input: str1 = "appleisgoodforhealth", str2 = "applemakesyouhealthy"
Output: "health"

Answer: (penalty regime: 0 %)

```
1 ▾ char* longestCommonSubstring(char str1[], char str2[]){
2
3 }
```

Syntax Error(s)

```
prog.cpp: In function ‘char* longestCommonSubstring(char*, char*)’:
prog.cpp:14:1: error: no return statement in function returning non-
 }
 ^
cc1plus: all warnings being treated as errors
```

Question **10**

Incorrect

Marked out of 25.00

Write a function, **Node* buildBalancedBst(Node* root)** that converts a normal BST to a height balanced BST.

Binary Search Tree (BST) is a tree in which all the nodes follow the below-mentioned properties:

- The left sub-tree of a node has a key less than or equal to its parent node's key.
- The right sub-tree of a node has a key greater than its parent node's key.

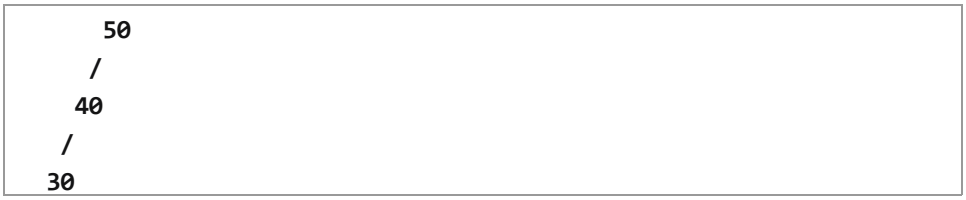
Node definition is already available:

```
struct Node{
    int data;
    Node* left, *right;
};
```

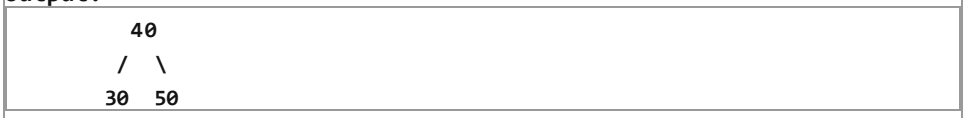
Moreover, a utility method to create a newNode is also available: **Node* newNode(int data)**

Example:

Input:



Output:



Answer: (penalty regime: 0 %)

```
1  struct Node{
2      int data;
3      Node* left, *right;
4  };
5
6  Node* newNode(int data)
7  {
8      Node * node = new Node;
9      node->data = data;
```

Syntax Error(s)

```
prog.cpp: In function ‘Node* buildBalancedBst(Node*)’:
prog.cpp:26:1: error: no return statement in function returning non-
 }
 ^
cc1plus: all warnings being treated as errors
```

Question **11**

Complete

Marked out of 2.00

Database indexes are useful for which of the following commands? Select all that apply:

Select one or more:

- [ ] a. INSERT
- [x] b. SELECT
- [x] c. UPDATE
- [x] d. DELETE
- [ ] e. TRUNCATE

Your response has been recorded.

12

What is the difference between Delete and Truncate command? Select all that apply.

Select one or more:

- ☐ a. Trigger is not fired on truncate.
- ☐ b. Delete locks the table row and truncate locks the complete table.
- ☑ c. Truncate can be rolled back and Delete can't be rolled black.
- ☑ d. Truncate does not reset identity of table

Your response has been recorded.

Question **13**

Complete

Marked out of 2.00

The HAVING clause does which of the following?

Select one:

- ◉ a. Acts like a WHERE clause but is used for groups rather than rows.
- ○ b. Acts like a WHERE clause but is used for rows rather than columns.
- ○ c. Acts like a WHERE clause but is used for columns rather than groups.
- ○ d. Acts EXACTLY like a WHERE clause.

Your response has been recorded.

Question **14**

Complete

Marked out of 2.00

A table is said to be in the Third Normal Form when, (select all that apply)

Select one or more:

- ☑ a. It is in the Second Normal form.
- ☑ b. It doesn't have Transitive Dependency.
- ☑ c. for each functional dependency ($X \rightarrow Y$), X should be a super Key.
- ☑ d. All of above

Your response has been recorded.

Question

Complete

Marked out of 2.00

15

How many different car license plates can be constructed if the licenses contain three letters followed by two digits if repetitions are allowed? Letters will always be in uppercase.

Select one:

- a. 26 x 25 x 24 x 10 x 9
- b. 26^3 x 10^2
- c. 2 x 26^3 x 10^2
- d. 2 x 26 x 25 x 24 x 10 x 9

Your response has been recorded.

Question **16**

Complete

Marked out of 2.00

Determine the number of strings that can be formed by rearranging theletters given in SALESPERSONS.

Select one:

- a. 12! / (4! · 2!)
- b. 12! / 6!
- c. 12! - 6!
- d. 12! - (4! · 2!)

Your response has been recorded.

Question
Complete
Marked out of 2.00

17

In a box, there are 8 red, 7 blue and 6 green balls. One ball is picked up randomly. What is the probability that it is neither red nor green?

Select one:

- a. 1/3
- b. 3/4
- c. 7/19
- d. 8/21
- e. 9/21

Your response has been recorded.

Question **18**
Complete
Marked out of 2.00

How can you make a bulleted list with numbers?

Select one:

- a. <dl>
- b.
- c. <list>
- d.

Your response has been recorded.

Question **19**
Complete
Marked out of 2.00

HTTP is a stateful protocol.

Select one:

- a. Yes
- b. No

Your response has been recorded.

Question

Complete

Marked out of 2.00

20

Overloaded functions are:

Select one:

- a. Built in functions in library which can be overridden
- b. Called with function are overridden
- c. Two or more functions with the same name but different number of parameters or type with dynamic function signature
- d. Two or more functions with the same name but different number of parameters or type with same function signature

Your response has been recorded.