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COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS

COURSE CODE : CSA0302

10. WRITE A C PROGRAM TO PERFORM INSERT AN ELEMENT IN AN ARRAY

C PROGRAMMING CODE:

```
#include <stdio.h>

int main() {
int arr[100], n, pos, val, i;

printf("Enter number of elements: ");
scanf("%d", &n);

printf("Enter %d elements: ", n);
for (i = 0; i < n; i++)
scanf("%d", &arr[i]);

printf("Enter position to insert (1-%d): ", n + 1);
scanf("%d", &pos);

printf("Enter value to insert: ");
scanf("%d", &val);

for (i = n; i >= pos; i--)
arr[i] = arr[i - 1];  // shift elements right

arr[pos - 1] = val;  // insert element
n++;
```

printf("Array after insertion: ");
for (i = 0; i < n; i++)
printf("%d ", arr[i]);

return 0;
}

OUTPUT: