

C PROGRAMMING ASSIGNMENT:

17

DATE: 06.01.22

SUBMITTED BY: -

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BRANCH: CSE

SECTION: B22

ROLL NO.: 21052258

1.WAP to find sum of two integers using pointers

Code:

```
#include<stdio.h>

int main(int argc, char const *argv[])
{
    int a, b, *p, *q, sum;

    printf("Enter two integers to add\n");
    scanf("%d%d", &a, &b);

    p = &a;
    q = &b;

    sum = *p + *q;

    printf("Sum of the numbers = %d\n", sum);

    return 0;
}
```

Output:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneD
CodeRunnerFile.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
Enter two integers to add
2 6
Sum of the numbers = 8
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17> █
```

2. WAP to swap two numbers using pointers

Code:

```
#include <stdio.h>

int main()
{
    int x, y, *a, *b, temp;
    printf("Enter the value of x and y\n");
    scanf("%d%d", &x, &y);
    printf("Before Swapping\nx = %d\ny = %d\n", x, y);
    a = &x;
    b = &y;
    temp = *b;
    *b = *a;
    *a = temp;
    printf("After Swapping\nx = %d\ny = %d\n", x, y);
    return 0;
}
```

Output:

```
Windows PowerShell
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PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\O
-o 2 } ; if ($?) { .\2 }
Enter the value of x and y
2 4
Before Swapping
x = 2
y = 4
After Swapping
x = 4
y = 2
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17> █
```

3. WAP to find greater of 2 nos

Code:

```
#include <stdio.h>

void main()
{
    int x, y, *large, *a, *b;
    printf("Enter the value of x and y :");
    scanf("%d%d", &x, &y);
    a = &x;
    b = &y;
    if (*a > *b)
        large = a;
    else
        large = b;
    printf("The greater number is : %d", *large);
}
```

Output:

```
Windows PowerShell
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PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneDrive\Desktop\C programming\lab" & gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
Enter the value of x and y :3 6
The greater number is : 6
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17> █
```

4. WAP to find middle integer of an array of five integers using pointers

Code:

```
#include <stdio.h>

int main()
{
    int data[5], *a, t, i, j;

    printf("Enter elements: \n");
    for (i = 0; i < 5; ++i)
    {
        printf("Enter element at index %d\n", i);
        scanf("%d", data + i);
    }

    for (i = 0; i < 5; ++i)
    {
        printf("%d\t", data[i]);
    }

    for (i = 0; i < 5; ++i)
    {
        for (j = i + 1; j < 5; ++j)
        {
            if (data[i] > data[j])
            {
                t = data[i];
                data[i] = data[j];
                data[j] = t;
            }
        }
    }

    printf("\nAscending order:\n");
    for (int i = 0; i < 5; ++i)
    {
```

```

        printf("%d\t", data[i]);
    }

    a = data;

    printf("\n %d\n", *(a + 2));

    return 0;
}

```

Output:

```

Windows PowerShell
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PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneD
-o 4 } ; if ($?) { .\4 }
Enter elements:
Enter element at index 0
3
Enter element at index 1
4
Enter element at index 2
5
Enter element at index 3
6
Enter element at index 4
4
3      4      5      6      4
Ascending order:
3      4      4      5      6
4
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17> 

```

5. WAP to add elements in an array using pointers

Code:

```
#include <stdio.h>

int main()
{
    int i, *ptr, sum = 0, arr[5] = {2, 4, 6, 8, 0};
    ptr = arr;
    for (i = 0; i < 5; ++i)
    {
        sum = sum + (*ptr + i);
    }
    printf("sum=%d", sum);
    return 0;
}
```

Output:

```
Windows PowerShell
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PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17"
.c -o 5 } ; if ($?) { .\5 }
sum=20
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\06jan22_17>
```