LAB-21

Q1.Program

```
#include <stdio.h>
enum week{sunday,Monday,Wednesday,Thursday,Friday,Satuarday,Sunday};
int main()
{
  enum week today;
  today=Wednesday;
  printf("%d day",today+1);

   return 0;
}
```

Output

```
3 day

...Program finished with exit code 0
Press ENTER to exit console
```

Q2Program using Bitwise operater.

```
#include <stdio.h>

int main()
{
   unsigned int a=60;
   unsigned int b=13;
   int c=0;
   c=a&b;
   printf("Line 2-Value of c is%d\n",c);
   c=a|b;
   printf("Line 2-Value of c is %d\n",c);
   c=a^b;
   printf("Line 3-Value of c is %d\n",c);
   c=~a;
   printf("Line 4-Value of c is %d\n",c);
   c=a>>2;
   printf("Line 5- Value of c is %d\n",c);
   c=a<<2;
   printf("Line 6- Value of c is %d",c);

   return 0;
}
```

Output

```
Line 2-Value of c is12
Line 2-Value of c is 61
Line 3-Value of c is 49
Line 4-Value of c is -61
Line 5- Value of c is 15
Line 6- Value of c is 240

...Program finished with exit code 0
Press ENTER to exit console.
```

Q3Allocate n elements dynamicallyto a pointer variable,assign data and find sum of all n elements using pointer variable.

```
#include <stdio.h>
```

```
#include<stdlib.h>
int main()
{
   int n,i,*ptr,sum=0;
   printf("Enter no of elements:");
   scanf("%d",&n);
   ptr=(int*)malloc(n*sizeof(int));
   printf("Enter element of array:");
   for(i=0; i<n; i++)
   {
      scanf("%d",ptr+i);
      sum+=*(ptr+i);
   }
   printf("Sum=%d",sum);
   free(ptr);

   return 0;
}
```

Output

```
Enter no of elements:4
Enter element of array:1
2
3
4
Sum=10

...Program finished with exit code 0
Press ENTER to exit console.
```

Q4allocate &assign dynamically 2D array where coloumn size is fixed to 5 to a pointer and find summ of all elements.

```
#include <stdio.h>
#include<stdlib.h>
int main()
{
   int n,j,i,sum=0;
   int (*a)[5];
   printf("Enter number of rows:");
   scanf("%d",&n);
   a=(int(*)[5])malloc(n*5*sizeof(int));
   printf("enter array");
   for(i=0; i<n; i++)
   {
   for(j=0; j<5; ++j)
   {
      scanf("%d",&a[i][j]);
      sum+=a[i][j];
   }
   }
   printf("sum=%d",sum);

   return 0;
}
```

Output

```
Enter number of rows:3
enter array1
2
```

```
3
4
5
6
7
8
9
3
4
5
6
7
8
sum=78

...Program finished with exit code 0
Press ENTER to exit console.
```

Q5.Find the Largest element.

```
#include <stdio.h>
#include<stdlib.h>
int main()
{
   int i,n;
   float *data;
   printf("Enter total no of elements(1 to 100):");
   scanf("%d",&n);
   data=(float*)calloc(n,sizeof(float));
   printf("\nEnter number :");
   for(i=1; i<n; i++)
   scanf("%f",data+i);
   for(i=1; i<n; i++)
   if(*data<*(data+i))
   *data=*(data+i);
   printf("Largest element=%.2f",*data);
   free(data);

   return 0;
}
```

Output

```
Enter total no of elements(1 to 100):4

Enter number :22
55
67
Largest element=67.00

...Program finished with exit code 0
Press ENTER to exit console.
```

Q6.WAP to use malloc to an array of score of cricket of 10 matches of a player and find the average score.

```
#include <stdio.h>
#include<stdlib.h>
int main()
{
  int n,i,*ptr;
```

```
  float average=0;
   printf("enter the number of  matches:");
   scanf("%d",&n);
   ptr=(int*)malloc(n*sizeof(int));
   printf("enter the score:");
   for(i=0;i<n;i++)
   {
      scanf("%d",ptr+i);
      average+=*(ptr+i);
   }
   average=average/10;
   printf("Average=%f",average);
   free(ptr);


   return 0;
}
```

Output

```
enter the number of  matches:10
enter the score:88
77
87
67
98
76
56
76
57
98
Average=78.000000

...Program finished with exit code 0
Press ENTER to exit console.
```