QUESTION-1

```
#include  <stdio.h>
  int main( )
  {
     char  wd[100], chtr;
     int   i=0;
     printf("enter text \n");
     while(chtr != '\n')
     {
        chtr = getchar();
        wd[i]   = chtr;
        i++;
     }
     printf("\n%s\n", wd);
  }
```

QUESTION-2

PROGRAM:

```
#include  <stdio.h>
  int main( )
  {
     char  wd[100], chtr;
     int   i=0;
     char st[50];
     printf("enter text \n");
     fgets(st, 50 , stdin);
     puts( st);
  }
```

OUTPUT:-

```
enter text
RAM IS A GOOD BOY

RAM IS A GOOD BOY
```

3.(A)

```
#include<stdio.h>

#include <string.h>

int main(){

char str[20];

printf("Enter string: ");

gets(str);

printf("String is: %s",str);

printf("\nLower String is: %s",strlwr(str));

return 0;

}
```

OUTPUT:-

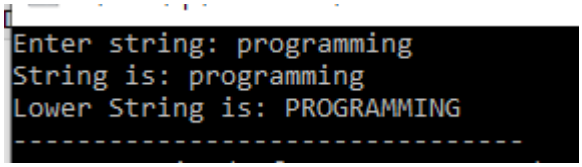
```
Enter string: PROGRAMMING
String is: PROGRAMMING
Lower String is: programming
--------------------------------
Process exited after 6.393 seconds with r
```

(B).

```
#include<stdio.h>

#include <string.h>

int main(){

char str[20];

printf("Enter string: ");

gets(str);

printf("String is: %s",str);

printf("\nLower String is: %s",strupr(str));

return 0;
```

```
}
```

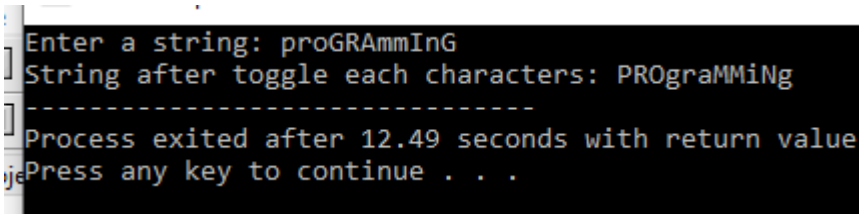
OUTPUT:-



(C).

```
#include <stdio.h>
 int main()
{
    char    str[100];
    int     counter;
    printf("Enter a string: ");
    gets(str);
   for(counter=0;str[counter]!=NULL;counter++)
    {
        if(str[counter]>='A' && str[counter]<='Z')
            str[counter]=str[counter]+32;
        else if(str[counter]>='a' && str[counter]<='z')
            str[counter]=str[counter]-32;
    }
   printf("String after toggle each characters: %s",str);
    return 0;
}
```

OUTPUT:-

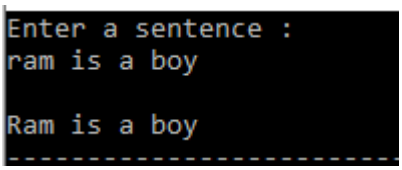


(D).

PROGRAM:-

```
#include<stdio.h>
int main()
{
char s[100];int i=0;
printf("Enter a sentence :\n");
gets(s);
for(i=0;s[i]!='.' && i<100;i++)
{
   if(i==0){
      if(s[i]>=97&&s[i]<=122){
         s[i]-=32;
      }
   }
   else{
      if(s[i]>=65&&s[i]<=90)
                  {
         s[i]+=32;
      }
   }
}
printf("\n%s",s);
return 0;
}
```

OUTPUT:-

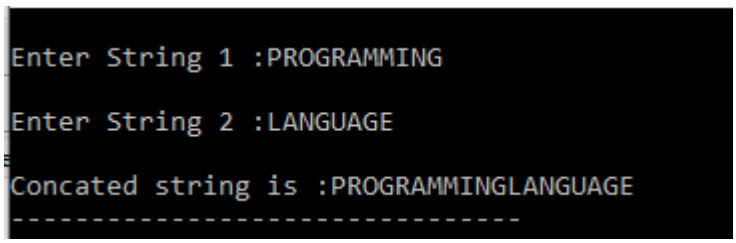


4. Without String Handling Functions

PROGRAM:-

```
#include<stdio.h>
#include<string.h>
void concat(char[], char[]);
int main() {
        char s1[50], s2[30];
        printf("\nEnter String 1 :");
        gets(s1);
        printf("\nEnter String 2 :");
        gets(s2);
        concat(s1, s2);
        printf("\nConcated string is :%s", s1);
        return (0);
}
void concat(char s1[], char s2[]) {
        int i, j;
        i = strlen(s1);
        for (j = 0; s2[j] != '\0'; i++, j++) {
                s1[i] = s2[j];
        }
        s1[i] = '\0';
}
```

OUTPUT:-



With String Handling Functions

PROGRAM:-

```
#include<stdio.h>
#include <string.h>
int main(){
char ch[10]={'P','R','O','G','R','A','M','I', 'N','G','\0'};
char ch2[10]={'L','A','N','G','U','A','G','E', '\0'};
strcat(ch,ch2);
printf("Value of first string is: %s",ch);
return 0;
}
```

OUTPUT:-

```
Enter String 1 :PROGRAMMING

Enter String 2 :LANGUAGE

Concated string is :PROGRAMMINGLANGUAGE
--------------------------------
```

5. With String Handling Functions

PROGRAM:-

```
#include<stdio.h>
#include <string.h>
int main(){
char str[20];
printf("Enter string: ");
printf("String is: %s",str);
printf("\nReverse String is: %s",strrev(str));
return 0;
}
```

OUTPUT:-

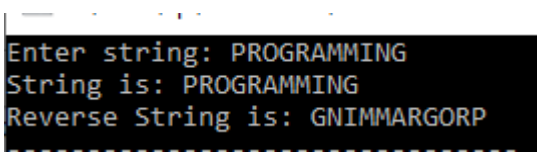
```
Enter string: PROGRAMMING
String is: PROGRAMMING
Reverse String is: GNIMMARGORP
--------------------------------
```

Without String Handling Functions

PROGRAM:-

```
 #include <stdio.h>
int main()
{
  char s[1000], r[1000];
  int begin, end, count = 0;

  printf("Input a string\n");
  gets(s);

  while (s[count] != '\0')
    count++;

  end = count - 1;

  for (begin = 0; begin < count; begin++) {
    r[begin] = s[end];
    end--;
  }

  r[begin] = '\0';

  printf("%s\n", r);

  return 0;
}
```

OUTPUT:-



QUESTION-6

Without String Handling Functions

PROGRAM:-

```
#include <stdio.h>
int main()
{
  char str1[100], str2[100];
  int m,n, i = 0;
     printf("Input the string : ");
     fgets(str1, 100, stdin);

  printf("Input  start position :");
  scanf("%d", &m);

  printf("Input the length of substring :");
  scanf("%d", &n);

  while (i < n)
  {
    str2[i] = str1[m+i-1];
    i++;
  }
  str2[i] = '\0';
  printf("substring is %s", str2);
}
```

With String Handling Functions

```
#include <stdio.h>
void main()
{
charstr[100], sstr[100];
```

```
intpos, l, c = 0;

printf("\n\nExtract a substring from a given string:\n");


printf("Input the string : ");
fgets(str, sizeofstr, stdin);

printf("Input the position to start extraction :");
scanf("%d", &pos);

printf("Input the length of substring :");
scanf("%d", &l);

while (c < l)
  {
sstr[c] = str[pos+c-1];
c++;
  }
sstr[c] = '\0';

printf("The substring retrieve from the string is : %s", sstr);

}
```

OUTPUT:-

```
Input the string : PROGRAMMINGLANGUAGE
Input  start position :4
Input the length of substring :4
substring is GRAM
--------------------------------
```

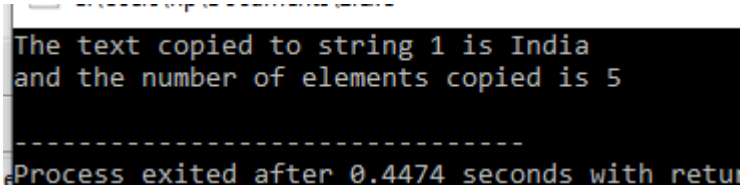
Q7. With String Handling Functions

PROGRAM:-

```
#include<stdio.h>
#include<string.h>
int main(){
```

```
char str1[10]="Hello",str2[10]="India",j;

strcpy(str1,str2);

j=strlen(str1);

printf("The text copied to string 1 is %s \nand the number of elements copied is %d\n",str1,j);

}
```

OUTPUT:-



Without String Handling Functions

PROGRAM:-

```
#include <stdio.h>

int copy_string(char *target, char *source)

{

int len=0;

        while(source[len] != '\0')

        {

                target[len] = source [len];

                len++;

        }

        target[len] = '\0';

        return len;

}

int main()

{ char str1[]="programming language";


        char str2[30];

        int count;

count = copy_string(str2,str1);
```

```
        printf("Source string (str1): %s\n",str1);
        printf("Target string (str2): %s\n",str2);
        printf("Copied characters are: %d\n",count);

        return 0;
}
```

OUTPUT:-

QUESTION:8

```
#include <stdio.h>
#include <string.h>
int main()
{
   char s[1000];
   int i,n,c=0;
   printf("Enter  the string : ");
   gets(s);
   n=strlen(s);
   for(i=0;i<n/2;i++)
   {
        if(s[i]==s[n-i-1])
        c++;

        }
        if(c==i)
           printf("string is palindrome");
   else
      printf("string is not palindrome");
   return 0;
}
```

OUTPUT:

```
Enter  the string : mom

string is palindrome
```

QUESTION:9

```
#include <stdio.h>
#include <string.h>
int main()
{
   char s[1000],wrd[1000];
   int n,a[1000],i,j,k=0,l,found=0,t=0;
   printf("Enter  the string : ");
   gets(s);
   printf("Enter word to be searched: ");
   gets(wrd);
   for(i=0;s[i];i++)
   {
         if(s[i]==' ')
         {
                  a[k++]=i;
                  }
         }
         a[k++]=i;
         j=0;
         for(i=0;i<k;i++)
         {
                  n=a[i]-j;
                  if(n==strlen(wrd))
```

```
                {
                        t=0;
                        for(l=0;wrd[l];l++)
                        {
                        if(s[l+j]==wrd[l])
                                {
                                        t++;
                                }
                        }
                        if(t==strlen(wrd))
                  {
                        found++;
                  }
                }
                j=a[i]+1;
        }
         printf("word '%s' is occurred count=%d ",wrd,found);

}
```

OUTPUT:

```
Enter  the string : Ram is a boy
Enter word to be searched: boy
word 'boy' is occurred count=1
```

QUESTION:10

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

```
int main()
{
  char ch, input[100], output[100];
  int no[26] = {0}, n, c, t, x;
  printf("Enter some word\n");
  scanf("%s", input);
  n = strlen(input);
  for (c = 0; c < n; c++)
  {
    ch = input[c] - 'a';
    no[ch]++;
  }
  t = 0;
  for (ch = 'a'; ch <= 'z'; ch++)
  {
    x = ch - 'a';
    for (c = 0; c < no[x]; c++)
    {
      output[t] = ch;
      t++;
    }
  }
  output[t] = '\0';
  printf("%s\n", output);
  return 0;
}
```

OUTPUT:

```
Enter some word

programming
```

```
aggimmnoprr
```

QUESTION:11

```
#include <stdio.h>
#include <string.h>
char str[100];
void main()
{
   int i, t, j, len;
   printf("Enter a string : ");
   scanf("%[^\n]s", str);
   len = strlen(str);
   str[len] = ' ';
   for (t = 0, i = 0; i < strlen(str); i++)
   {
      if ((str[i] == ' ') && (str[i - 1] == 's'))
      {
         for (j = t; j < i; j++)
            printf("%c", str[j]);
         t = i + 1;
         printf("\n");
      }
      else
      {
         if (str[i] == ' ')
         {
            t = i + 1;
         }
```

```
    }
  }
}
```

OUTPUT:

```
Enter a string : welcome to class

class
```

QUESTION:12

```
#include <stdio.h>
 #include <string.h>
 int main() {
      char string[256], text[256], words[100][256];
      int i, j, k, n;
      i = j = k = n = 0;
      printf("Enter your input string:");
      fgets(string, 256, stdin);
      string[strlen(string) - 1] = '\0';
      while (string[i] != '\0') {
            if (string[i] == ' ') {
                  words[j][k] = '\0';
                  k = 0;
                  j++;
            } else {
                  words[j][k++] = string[i];
            }
            i++;
      }

      words[j][k] = '\0';
      n = j;
      for (i = 0; i < n; i++) {
```

```
        for (j = i + 1; j <= n; j++) {
            if (strcmp(words[i], words[j]) == 0) {
                for (k = j; k < n; k++) {
                    strcpy(words[k], words[k + 1]);
                }
                n--, j--;
            }
        }
    }
    for (i = 0; i <= n; i++) {
        printf("%s ", words[i]);
    }
    printf("\n");
    return 0;
}
```

OUTPUT:

```
Enter your input string:Ram goes to the to school everyday

Ram goes to the school everyday
```