Lab Program 1 :

WAP to simulate the working of stack using an array with the following A: PUSH, B: POP & display. The program should print appropriate

```
#include<stdio.h>
#include<process.h>
#include<conio.h>
#define STACK_SIZE 5
int top=-1;
int s[10];
int item;
void push()
{ if(top==STACK_SIZE-1)
  { printf("stack overflow\n");
    return;
  }
  top=top+1;
  s[top]=item;
}
int pop()
{ if(top==-1) return -1;
  return s[top--];
}
void display()
{ int i;
  if(top==-1)
  { printf("stack is empty\n");
  return;
}
  printf("contents of the stack\n");
```

```
for(i=top; i>=0; i--)
{
  printf("%d\n", s[i]);
}
}
int main()
{ int item_deleted;
char choice;
  clrscr();
  for(;;)
{ printf("\n A: push \n B: pop \n C: display \n D: exit");
  printf("enter the choice \n");
  scanf("%c", &choice);
  switch(choice)
{ case 'A':
  case 'A': printf("enter the item to be inserted \n");
  scanf("%d", &item);
  push()
  break;
case 'B': item_deleted=pop(); (-1)
  if(item_deleted == -1)
  printf("stack is empty\n");
  else
  printf("item deleted is %d\n", item_deleted);
  break;
case 'C': display();
  break;
  default: exit(0);
}
}
getch();
}
```