```
1) WAP to simulate the working of which using an array
   with a) purh, 6) pop of display. The program Money
   point coppropriate message for istack overflow and total underfor
Soln:- # include < stdo. h>
      # imlude < stalib. h>
      # define STACK-SIZE = 3
      int S[3], item;
     int top = -1;
     void push ()
         if (top == STACh_SIZE-1)
            printf (" stack overflow in");
          top = top + 1;
         S[top] = item;
                              1 1816 = 60
     int pap ()
         if (top == -1) {
               Printy ("Stack underflow \n");
         return SI top = top - 17;
    void display ()
       int i)
       if (tor == -1) {
```

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Print (" Empty stack (");
   3
   Printy (" contents of the stath are \");
   for (i=0; i=top; i+t)
          printf (" dod \n", SE(3);
    3
3
void main ()
{
   int item - deleted;
  int choice = 1;
  While (chola : 1=0)
     Print ("1. purh in 2, popin 3. display in 4. Entrin");
     Printy (" Inter choice \n");
    Scary ( " . / . d" , & chola);
    switch (chola) {
    care 1: privat (" Enter number to be inverted \n");
    scary ("1.d", &item);
    Purh (1;
    break;
    care 2: pos item - deleted = pop();
     if (item - deleted !=0) {
        printy (" item delited is ".d \n", item delited);
         break ;
     3
     elu {
       Printy (" Stack underflow \n");
   7
     6 real ;
```

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Care 3: display ();
                                break;
                                    Care 4: choice =0;
                                    break ;
                                  default & printf ( "Invalld Enpert In ")
                          3
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                                                                                                                                                                                                                                                                    (0 = 1 = 0)
                               The many or we desired on a week of a first
                                                          the printer of the number of the major of
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1) WAP to simulate the working of utalk using an array
                                             [ Paning Parameter]
  with a) Pucho b) pop c) display. The program should
 print opprior message for utall overflow and utall
  underflow.
      # include < stdio, h>
       # include < como. h>
       # include < procen , h>
         define STALK-SIZES
       int top = -1
       void purh ( int item, int SBS, int * top)
       3
         Robert
          if ( * top = = STACK_ SIZE - 1)
          5
            printy (" Stack overflow \n");
           sustation or
          * top = * top +1;
         S [* top] = item;
     3
       int pap ( int ss], int *top)
           int item - deteted;
           if (* top == -1)
           Print (" Stack underflow \n");
           totare a
       3
```

```
item - deleted = S [* top];
 return item-deleted;
int display (int top, int sI)
   if (top = = -1).
   5
      Printy (" It is an empty stack \n");
     return 0;
        Type to the to the ti
  printy (" The Stall is In");
  bor (i=0; i <= top; i++)
      printy (" " d \n", sei);
   D return 0;
 void maly ()
     int item, SEFT;
          item - deliter;
          choice 1 = 1;
     int
    bed (5) while ( choke != 0)
     printf (" 1. part in 2, 2 pop in 3, display & n 4. exist
     print ( " Inter number in");
     scant (" 4. d", & choice);
```

```
(Cose) (choice)
   care 1: Prints (" Enter number to the interted \");
             scanf (" ".d", & item );
            Push ( item, 587, $ 4 top);
             b real ;
 Care 2: item - deleted = pop (s, & top);
             if ( item - deleted != 0) {
            Printf (" item deleted is 1. d\n'1), item-delety);
            brean;
          display (top, 5);
 Care 4:
 break;
 Casa &;
 default: printy ("invalla input 1");
3
3
```