```
LABPROGRAMS-2 M. Witheesh
110 program for different tree
                                AP19110010326
                                    CSE-F
 traversals.
 #include estations
 # include estalibing
  ant data;
   struct rode * left;
   struct node * right?
  struct node * node = (stret node *)
      node -> data = data o
      node -) le et = NULLO
      node - right = NULL'o
      return (node)
     3
     If (wode = = MALT)
              I JUN - 9 marsh 1 Ideas Home
    voia Print Inovaer CIty et node node)
    if Crode = = NULL)
       returno
     Printe ("1.d", node-) data);
     Print Preorder (node -) left),
     Print Preorder Chode - night),
    But main ();
     Print & ("Preorder transversal")
     Print Preorder Crootl;
```

```
Printf C" ? norder transversa (") :
  Printinorder Croot)?
  PARTE L' Postorder transversally
   Print postorder (4001)
   get char c 39
    return of
e) c program to construct a Binary season tree of
  Perform deletion and inorder transversal
  #include asidio. no
  # Include (statib h) other whole
   struct brnode
   int rolved
   struct brande 4/9
   struct broadetyo
   3 *YOOT : NULL 1 * temp= NULL 14 274 15
   void delate 1 ()?
    Void insert cog
    void delete ()?
    void inorder (struct binodett);
     word searche stret broode + +) ...
     NOTO POLICE TO THE
     inc Plag= 19
     void maines
      9
      int che
      PANA P ("In OPERA HONS") "
```

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```
printe ("Il n In set an element into tree ");
printf C'21n Delete an element from treeligo
Printe ("3.Inorder transversal")
Print & C"4. Exit")
 while(1)
  Printe Calkenter your choice o 11)0
  scan & (" 1. d" (& en)?
  switch (cn)
  caselo
  insert()?
   break ?
   case 29
    ge love co
    break;
 case 33
    inorder Croot 19
   preak ?
   Casey
    exit(0)?
  default ;
    Printe (" wyong choice ")
    breaks
 1490 insert a node in thee
  Note in sev
```

```
3) DES C Program using array
  Mandade 2st dio.no
  # include < aconio. no
   Par a Cao I (20) i reach (20), no
   void ats Cint vod
        104 19 1000 roop 1911 36 )
         reach [V]=19
         for Cial; ican gitt)
           is coenciler greach Cilli
            bout & Culu 199 - 1.91. 1.1. 10
            des cing
     Voind maines &
           int 111 , Count = 00
            CINSCACTÓ
           Print P (" Enter nom ber)
            Scan & ("1.d", &n);
            for Ci=1; i<=n; i++)
              reacn Ci] = 00
              for (1=10, 1 == noit+)
                 aci][i]=00
       C++16 4=7161=10 204
        for C3=1912=17 31++)
         SCOUL C,19 160C6JC1])
         des CIDS
        Printf C"In");
        for Cisinic = ngitt )
            Cream Rilly
               Cout ++
        74
```

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4) BES c program using array.
# " notode estatio. h)
 int a c207 (207), 2(20), visited (20), nii, 3,8=0,
 void bes Cinv ) &
       for Cial 912= ng1++3
     CESS Patieins & B [23CAS 03 & 6
                 9 C++8 J=90
  1 € CEC= 1)0
           Visited CaceJJ=1;
     p68 C5 C6 ++330
   " ( none 3 of 13 on 0 10 in 3 13 4 10 in 3
  Void mainera
      int vo
     Print & C" Enter the number of vertice!)
      scane ("1.d", &n);
       for CP=1 9 P<= N 0 1++12
            2[:]=0
           visited [1]:00
      4
      Print & C"Enter. The Startmachexen)
     scan & (".1. d" , & v) 6
      685 CV);
     for Ci = 1; i = = n = i + +) }
        if cuisted (17)
          Print P ("12 1 + 11 , 1),
         esleg
           Printf("BES in not),"
           break;
```

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```
5. Linear search Program in C
 #indude estato. no
   int maine)
   and array C 100 ], search, Cino
   Printe Cu Enter number of elements in ark
   scanf ("",d", &n):
   beut 6 (11 Enter 119 jutodes callui iule
    for cc=ogckn gc+t)
      scan & C"r.d" 1 & sero array Ecolo
    Print & Clienter a no. of to search ).
    scanf Curdu Eseatenso
    for cc=0 ; ccn; c++)
     ¿ E carrayce ?= = search)
      Printe C".1.d , seach 1 C+1 );
       break o
      14 (c== n)
      printfich y .dil, search).
      16101000
```

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```
6. Binary search in c
# include estdio. no
  ( n + main c)
  int cifirst, last, middle, nisearch, array Crowle
  Print & C" Enter no. of element s);
  Scane (11.1.4", En),
   buntte cuter. 1.9 juteder 2 14, 10 )o
    for cc=0 ; c < noc++)
    Scan & C"1. d", & array [c] 10
   Printe ("Enter value topinal"
    Scane (11.1.d" (Eseach)
    firs +=0
    1 ast = n-10
    middle: (first-lost)/2
     white Crirata = last) &
      if Carraycomiddle Je search)
       first = middle + 10
       else il Carray Emiddle ] es seaven)
       Printe c".1. d found at location ".d",
       Search, middlet1)
        break o
       3
       lost = middle-1
       3e Crivstolasa)
       Printf ("1.d" Isearch)
       return colo
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```