First Semester MCA (2020 scheme) practical Examination June 2021

20MCA135 DataStaucture Lab

Date: 30 06 | 902 | Time: 1:00 PM to 4:00 PM

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Batch 2

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1) Meaging of a sorted arralys have boll
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2) Implement poims Algorithm.

Answeds

```
# include (statio h)

# include (conio h)

Void main ()

{

not or organic [50], array 2 [50], array 3 [100], i, j, k = 0, m, n;

closes ();

print f ("enter the Size of first array.");

Scapf ("Y.d", fm);

print f ("enter the Sorted elements of first array");

For (i = 0; i < m; i + +)

{

Scapf ("Y.d", farray 1 [i];

Scapf ("Y.d", farray 1 [i];
```

printf ("enter the size of Second array!");

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10 Scanfil' y.d", 8n),
    Point ("enter the sorted elements of second array)
   60(i=0;i<0;i++)+1011 € 1/1011 €
                Janay 2 (i)
     1=05
    J=0
    while(i<m&4j<n)
     else
                                 () CHINCHY ROLL
                                    AOSTO JOH
                   [as] There's (09) through you
    If (i > = m)
    while (jen)
    200043(K) = 20004 2[j]
```

```
while (i<m)
   assays(x) = assay2(i); ? concept demonstration
   i++;
   K++;
                              54-016+05 0 ml x x1 11
   Pointf ("In After Merging: 10");
for (i=0; i<m+n; i++)
    paintf ('In 1.d", assay3[i]);
                    some and cotton at the state
              point f ("In Entro the will jucces of
  enter the size of first array: 3
  enter the Sorted elements of first array
   123
   enter the Size of second array: 3
   enter the Sorted elements of Second array
   456
```

(2)

```
Ofter merging:
  2
  3
                                 61 5:191
  4
  5
                               Correct A Miles
  6
a) Implement paims Algorithma . In
 #include <Stdio.b>
# include (conio.b)
int a,b,u,v,n,i,), ne=1;
 Void visited (io)={0} impriminust=0, cost (io)[10].
 Void main()
               Point ( m / of, soongs (i))
  closcocy,
  pointf("In enter the number of nodes:"),
  Scanf ("xd", 4n);
  pointf C'In Enter the adjacency materix: 150)
  €00 (i=1; 100 i<= p; i++)
  Foo Ci=4; j <= P; j + +) mote l'admin all chies
  scapf ("Y.d", & cost [i][j])
  IF (cost [i][i] ==0)
   cost[i][j] = 999;
```

```
3
```

```
111 1116
Visited(1]=1;
Pointf(1/n/)
while (nexn)
 for(i=1)min=999; i<0; i++)
 foo (j=1;j&0; j++)
 If (cost [i] [i] < min)
 If (visited [i]!=0)
   min=cost[i][i];
   a=u=i;
                  1:100 (213:15)
   b=Y=j';
  3
   If (visited [u] == 0 11 visited [v] == 0)
   pointf("In edge %d:(%d %d) cost! %d",
               ne++,a,b,min);
   minost +=min; cint or order ills
   Visited[b] = 1;
  3
    cost[a][b]=cost[b][a]=999;
   Pointf("In Minimum cost: "d", mincost);
  getch ();
```

Output

Enter the number of nodes if enter the adjacency matrix! Christianistair 3 0 5 0 3 0 Various [1] [1) + o = 3: 150564 Constitution of 605002

0 3 6 0 0 6 004260 (())(1)

edge 1: (13) cost:1 1 1 m. 7 m. Edge 2: (12) cost:3 Edge 8: (2×5) cost 13 a finith district

Edge 4: (3 6) Cost: 4 edge 5: (6 4) cost +2

Minimum cost: 13 in the think

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get a continue of the service of a service of the many