Octhot:

enter data: 1011101

gnorating helynomial ! 1000100000100061

checksom is: 1000101101011000

final approad is: 101701700070170707000

test evolut detection 0 (yes) 1 (no)?:0
enter the facition whose evolution is to be inserted:3

evanceus data: 10011011000 101101011000

and the second of the second of the second

in the property and its of the first that the character than it is

the many the figure to sure of the constraint of the constraint

sures on it to paper the are mighty

	Date 20-12-
xpt. No	Page No
Experiment -7	
AIM:- Write a program you come detecting or	ode using CRC-CCITT (16-6)
#Include < stolio:h>	
#Indude < staning. h>	
#define N staten(gen)	
char modif[28], drecksum[28], gen[28];	
int a,c,c,b;	
void xerc)	
5	
ff (c=1; c <n; c++)<="" td=""><td></td></n;>	
checksum(c) = (c checksum(c) == gen(c))?'0':'1'));
}	•
upid cacc)	
{	
Dice=0; esn; ett)	
checksum[e]=modif[e];	
de	
ş	
if(checksom[O] == 'y')	
xxx();	
f&cCc=0; c <n-1;c++)< td=""><td></td></n-1;c++)<>	
checksom[c]=checksom[c+1];	
checksum[c]=modif[e++);	
} white (c < = a + N - 1);	
Teacher's	Signature :

Expt. No. ____7 Page No. ________ Coniom toi int flag=0; stochy (gen, "10001000000100001"); point f (" In enter data"); sanf(" 1n - - - - - - - \n"); frintf("In generating helynomials: 1.5", gon); a = strlenCmedif); f&ce=a; e<a+n-1; e++) modif[e]='0'; fointf("In -----\n"); forintf (" med-ified data is: xs", modif); printf ("In------); COCC); faintf (" checksum is : 1/8", checksom); force=a; c <a+N-1; c++) modified=checksom [e-a]; fointf("In -----\n"); points ("In final cookwood is! V.s", modif); frintf("\n-----\n"); printf(" In test error detectors Ocycs) 1(no)?: "). scanf(" r.d", ke); H(e==0)1 dos frints (" In order the position whom one is to be inscribed: "); sanf ("xd", ke); Teacher's Signature : ____

	Date
Expt. No7	Page No13
2	
while Ce == 011 e>a+N-1);	+ - 1
modif[e-1] = (modif[e-1] = = '0')? '1': '0';	
forint(c.10)0,);	0 1.1
brintf ("In examinerous data: is In", madif);	
Sax Tax	34 (11) 5
Complete the second of the sec	
cacc),	- 2
for Cc=0; (c <n-1) &&="" [e]!="11);" cchackum="" e++);<="" td=""><td>-</td></n-1)>	-
17 (c <n-1)< td=""><td></td></n-1)<>	
frintf(" evoca detectal In In");	
else	
forintf ("In");	
2	1.3
J	
King the different to the second	:14
- A	A STA
	11
	1 1
	<u>.</u>
the state of the s	
The state of the s	
Teacher's Signature : .	

OUTPUT:

Enter the no of nodes acquired = 3

Enter the dists from the nodes 1 to other node...

Enter dist to node 2=100
Enter dist to node 3=999

Enter the dists from the nodes 2 to other node...

Enter dist to node 1= 999 Enter dist to node 8= 15

Enter the dists from the nodes 3 to other node...

Enter dist to node 1 = 20Gift to node 2 = 25

The configuration of the nodes often initialization is as follows:

The sooting table for node no 1 is as follows:

OESTENDED OESTENDE NEXT HOP

1 0 1
2 10 2
3 NO LINK NO HOP

The sworting table for node no 2 is as follows

	DESTENATEDN	DISTANCE	NOXT_HOP
the statement of	7 - 10 =	NO LINK	NO 400
and shoulder no !	2	0	2
	3	15	3

The mosting table for node no 3 is as follows

NOCTAND 230	DOTANCE	NEXT_HOP
7	20	T
2	25	Q
3	О	3

The config of the nodes after the comp of the paths is as follows: The shouting table you node no. I is as jollows.

ESTENATION	DESTANCE	NECT-ADP
1	0	. 4
2	20	3
3	25	: 1 2 1

The secting table for node no 2 is as follows

DESTENATION	DISTANCE	NEXT_HOP
Ŧ	35	.3
Q	O	æ
3)5	

The secreting table for node no 3 is as follows DESTENDED DESTENDED NO

SITE ON THE STATE OF	PLSTANCE	NEXTHOP
7	20	7 , , ,
2	2.5	2
3	0 14	.3

Enter 0 to exit or any other key to find the sharkest first ! I

Enter the nodes the ashles path is to be found: ± 3 The most suitable shoute from node ± 103 is as follows: $\pm --> 2-->3$ The length of the statest both between node ± 53 is 25

a right care that girls had not the the state of

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in the wide it is not the court of the in the

they want in my it is the matter

and it is the contract of the state of the

The state of the state of

Expt. No. 8

Page No. 14

BAPE TYO	Page No
Experiment - 8	The state of the s
Otton i Chille o Arrango de distant	
AIM: Write a fingular du distance u	200-160 algerithm to find suitable hath
	in early at a line
#indude< stdia.h>	
#finclude < Stallib. h >	
#define NUL 1000	
#defire NOOES 10	
stauct nede	
5	
int &[NOOES][3];	.1 .4
2.	
Struct node n [NOOES];	
typedef stauct node NOO;	
int main()	
9	
vaid init Cint, int);	
upid inficint, in);	
void intitat callercint, int);	
void opscint, int, int)	
void find Cint, int);	.\
int i, j, x, y, no;	L, 2
de §	
paint f C" In Enter the no. of nodes step	wind:");
3canf("%0", &co);	
3 while Cno > 10 11 no < 0);	
	Teacher's Signature :

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Date	
Daic	•

Expt. No. ____8___

Page No. 15

```
182Ci=0; i<no; i++)
ini+(no,i);
inh Coo, i);
forint f (" In The configuration of the nodes after initialization is as follows: ");
181 Ci=0; i<00; i++)
chi (no, i, o);
ft(j=0; j<ne; j++)
(++i; en>i; 0=i) (e)
caller Cno, i);
printf ("In The config of the nodes after the comp the paths is as follows:");
forCi=0; i<ra; i++)
$1(no, 1, 1);
cohile (1)
forinff( In Enter 0 to exit or any other key to find the shotest path: );
300nf ("kd", kj);
(i) ) ti
 break;
 frintf ("In Enter the notes beto which path is to be found: ");
 sconf(" "d xd", Kx, Ky);
3 while ((24011 x>no) KX (y<011 y>no));
 F(F) printf( In The most exitable soute from note x d to x d is as follow In
                                                      ",x,y);
                                        Teacher's Signature: ____
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Date	
Date	

Expt. No. ____8____

Page No. __16____

۸٦	Apt. 110.	Page NoIb
	find(x,y);	
	forintf("Xd", y);	
-	printf C" In The length of the Shartest path between need	e xd & Y.d is Y.d"
	, 0 0	2, y, o(x-1). Hy-1)(2)
	2	701
	الم الم	
	void init Cint no Int x)	
	5	
	int i:	
	Jet. Ci=0; i <na; i++)="" td="" {<=""><td></td></na;>	
	n[ex].t[i][t] = i;	
	n[x). +[i][2] = 999;	
	nco]. &[i][3]=NUL;	
	2	
	() () () () () () () () () ()	
	η[τ]· [τ][3] = x;	
	2	
	void inficint me, int x)	
	5	
	int i:	
	wint (" to Foly the dista lyon nodes i'd to other I	1806", x+1).
	trinf ("In Pls enter 999 if there is no direct In")	. ' '
	for Ci = 0; 1< no; 1+P	
	5	
	¥ (i1=x)	
	501-10	
	do	
	9	
	ζ	
	Teacher's Signatu	re :
-		

Date 2 fointf("In Enton dist to nock xd = ", i+1); sconf (" Y.d ", KOTX). ACIJCZ);

schic Cotx). ACIJEZJ <011 O[XJ. +[1]EZ] >999); (PPP = 1 [B] [i] t. [[27] } T= [E][1]+[X]0 void caller Cint no, intx) upid composition, int, int); int i: ABICI=0; i<ne; i++) 1 (1 (1) 1) 1 = 999 KK N(x) + (1) (2) 1 = 0) compan (or, i, no); yold compor Cint of, int y, int no) int 1, 3; for (1=0; i<no; i++) CEJEIJ + LEJCEJC + CEJCEJ, A CUEXJ. FEIJEOZ> &) nex). &[1][2] = 7;

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I B = CEJCIJ# · CrJA

Date 20-12-21 void of Cint no, int x, int 3) printf ("In The sporting take for node no xid is as follows", x+1); PRINTE (" IN IN 12 1 & DESTENATION 1 DESTANCE 12 NEXT_HOPD. Att (0=0; 1< no; 1+1) } if ((12 - KX n[x] +[i][2] >= 999) 11 (p[x]. +[i][2]> = (999 * no)) forintf(" In It It It X'd It NO LENK IT NO HOP", NEW TECT J+1). else. HCDEX). 46JE3J==NOL) [HIN+ 5(" N 1414) + X d 1+ 1+ X d 1+ 1+ ND HOP", N(x). +(; X X)+1, N(x). +(; Xx). else. print ("10 1+1+1+ xd 1+1+ xd 1+1+ xd 1+1+1 0x +1+1+1 0x) +11110) 1. (T+CEJCIJ #. [Z] • U wid find (int x int y) i= r-1; j=y-1; faintf("".d--> ",x)", if (OCi). ACi)[3]=j) find (n [i] + [j] [3]+1, y); siction:

Teacher's Signature: __

OUTPUT:-

```
Distance Motorix ( 4\times4, max distance linfinity 15 99); 12 +3 +5 +67 +3 24 +5 +67 +3 24 +4 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4 24 +4
```

. 3

1 . 1/2 . . .

(a) 141 - 141.

Date
Expt. No. 9 Page No. 19
Expriment - 9:-
AIM: Implement Dijkstra's algorithm to compute the shortest both for a given topology.
#include < bits/stle++.h>
using nameshare std; #define V4
int min Distance Cint dist (), loop state () {
int min = 9999, min-index;
for C int v = 0; v < V; v++)
if (8ft Set [v] == false kk dist[v] <= min)
min = dist[v], min_index = v;
netun minindex;
7
void printPath (int parent) {
if C_{f} C
netunn;
print Path (porent , porent (j.);
Out << j << " ";
}
void print-Solution Cint dist[], int n, int porent[]) {
int $s_{DC} = 0$;
cont << "Vertex 1& Distance 1 Path" << endl;
faCint i=1; i< V; i+1)
- 10 h
<< 390 << " -> " << i << " \ + \ + " << dist-Ci] << " \ + \ + "

Teacher's Signature : _____

	Date
Expt. No. 9	Page No. 20
<< %90 << " " ;	
forintPath(fromt, i);	
}	
3	
upid dijkstrac int graph [V][V], int snc) f int dist[V];	
book of the Set CVD;	
int homent CVD;	
J&C int i = 0; i < V; i++) {	
paron+(i) = -1;	
dist-Ci]= 9999;	
shtSet [i'] = foloc;	
- J	
dist (sac) = 0;	
An Cint count = 0; count < V-1; count++){	
int u = min Distance (dist, shtset);	
sphSet[u] = tave;	
At Cint v = 0; v < V; v++)	
if CISHTSet [V] KX graph [L][V] KR	distlus + graph [us [vs
< dist(v)) {	85
poont (v) = u;	
dist(v) = dist(u) + goraph(u)[v];	
3	
3	
forint Solution Calist, V, parant);	
int main () {	
int graph [V] [V]	

Teacher's Signature : ____

D-4-	
Date	

Expt. No. ____9

Page No. 21

cost << " Distance Mobile (" << V << "xx" << V << ", max distance finfinity is 99): " << end.1; fa (int i = 0; i < V; i+) 5 At C int j = 0; j < V; j ++) cin >> graph[i][j]; cout << "Enter the seconce ventex: (0-" << V-1 << ")" << endl; int sac; cin >> sac; dijkstra (graph; sac); out << endl;

Teacher's Signature : ____

OUTFUT !

hockel [0]: 83 Jyles

hatel [1]: 86 lyks

packet [2]: 77 bytes

hocket [3]: 15 lytes

hadel [4]: 93 lytes

Enta the Output state: 30

Enter the Bucket size: 85

Incoming Pocket size: 83

Bytes tremaining to Thansmit! 83

Packet of Size 30 Transmitted --- Bytes Remaining to Transmit: 53

Packet of Size 30 Transmitted --- Bytes Remaining to Transmit: 23

Racket of size 23 Fransmitted ---- Bytes Kemaining to Pransmit: O

Inceming hocket size (86 lytes) is Greater than booket capacity (85 lytes) - PACKET REJECTED

Uncoming Packet size:-77

Bytes Jamaining to Bransmit: 77

Podat of size 30 Paranamitted =--- Bytes Remaining to Bransmit: 47

Podat of size 30 Pransmitted --- Bytes Remaining to Toronsmit: 17

Pocket of size 17 Thoremitted --- Bytes Remaining to Thoremit: 0

Incoming Packet size: 15

Bytes tremaing to Thorsmit: 15

Packet of size 15 Transmitted --- Bytes Romaining to Transmit: 0

Incoming pooled 93e (93 dytos) is Groscos than bucket reparity (85 byto)-Pooles LEJECT

D	
Date	

Expt. No	Page No&e
Experiment -10:-	
AIM:- Write Ingram Ja congestion control vang L	eaky bucket algerithm.
#indude <stdip.h></stdip.h>	
#include < stdlib.h7	
finclade unistal.h>	
#define NOF PACKETS 5	
/*	
int grand (int a)	
<i>§</i>	
int an = Compon() 110) 1 a;	
9nefvan 3n = = 0 ? 1 : 9n;	
}	
*/	
/*	
#indode. < stalib. h>	
long int mondomCvoid);	
The grandom Junction uses a nonlinear additive feedback	nandow number
ground omblaing a debutt table of size 31 long integ	execute neurole executive
Leave to - second nonline to the to the state of the second	Z-IIV
of this mondon number generator is very large, approximate	ed 16 4 ((5,31)-1)
**/	
int main () {	
int hadet_sz [por factors][NOF-PACKETS], i, clk, b-s.	186, 0-110te, 1-18-11=0
p-98, p-time, oh;	
JA Ci= 0; ILNOF PACKETS; ++ i)	
Teacher's Signature : .	

Data	
Date	

Expt. No. 10

Page No. 23

```
packet sz[i] = Diandom() x. 100;
facci = 0; KNOF PACKETS; ++1)
   printf ("In hacket [xd): xd lytes 1s", i, hacket = 33(i);
forintf (" In Enter the Outful nate: ");
sout (" kd", ko mote);
frintf (" Enter the Bucket Size:");
ganf (" " d" KG size);
ARCIEO: KNOF_PACKETS: ++i)
    if ( ( pocket_ sz [i] + p_sz_nm) > b_size)
       if ( hacket satis > 6-size) / "compane the packet siz with bocket size"
        printf ("In In Inoming backet size ( > dbytes) is Greater than bucket
        copacity ( " dytes) - PACKET REJECTED", paket - 53[i], b size);
      else
         forintf (" In In Bucket abouty exceeded - PACKETS REJECTED! 1");
       1-53-9m+=hacket_sz[i]
       printf ("In In Incoming Packel size: Y.d", hackt-sz[i];
      printf (" In Bytes remaining to Bransmit: ". d", p-55-rm);
     (h-time = mandom() * 10;
     [[print](" In Time left for toronsmission: x d units", p_time);
     11 for (c/k = 10; c/k <= p-time; c/k + = 10)
      while ( p_sz-=>m>0)
         Step (1);
         if Ch-sz sim)
                                       Teacher's Signature: _
```

	Date
Expt. No	Page No. 24
if Ch_93_nm <= 0_91000) /* po Outhout state */ oh = h-53-nm, h-9-3-	chet size remaining comparing with
else	,,mi = 0 ₁
of = 00 yate, p-33-9-m forintf ("\n Packet of si forintf (" Bytes Rem	= 0_nate; ze i.d Thansmitted", sh); owning to Thronsmit: i.d", h-53_7m);
else	9
5	The state of the s
printf ("In No packets to	transmit! (");
<u> </u>	
3	The state of the s
\$	· Beer to and
	the state of the state of the
	A MILL STATE OF THE STATE OF TH
Î ve ve	a 1 A · At) A T
€val A	F 14
	9
	111111

Teacher's Signature : _____

OUTPUT :

The sonor is neady to messitue acceive

Enter file name: Server TCP. by

From Server:

John Sedret in hot "

Server Name - "127.0.0.1"

Server Sedret = Secret (AF_Dref, Sock_STREAM)

Server Sedret. bind ((server Name, server Pert))

Server Sedret. listen(1)

While 1:

Print ("The server is ready to receive")

connection Sedret, adds = server Sedret, a creft ()

sontection Sould, adds = server soulet, a creft of Sinterior = connection sould, siecu (1024), dicade()

file = ofor (sortence, usu) d - fite, sread (1024)

Somechin Socket. sond [1. encode()]

| brint ('(n Sont contents of ' + sentence)

file · close()

connection socket. close()

The south is tready to heceive Sort contents of Schworter. My
The south is tready to heceive.

Date	
17010	***********

Expt. No. ________

Page No. 25

Expairment: 11

ATM:- Using TCP/IP seckets, white a client-source paggram to mote client

Sportling the file name and source to and back the contents of the

sequested file if present

Client TCP. by

page Societ Import*

sorverName = '127.00.1'

Source = 12000

dientSocket = sodet CAF_INET, SOCK_STREAM)

client Socket. connect (ConvoiName. sonvoiPat))

sortence = input ("In Enter file name: ")

client Socket, and (sentance, oncode ())

filecontents = client Socket. Siecv (1024), decode()

forint(' In Forem Source: In')

frint (file contents) client Sorket. close()

SowerTO hy Jam socket impat*

201VOINanc = "127.0.0. 1"

Sower And = 12000

Server Socket = Socket (OF INET, SOCK STREAM)
Server Socket bird (C Scruer Name, Schurfort))

sour socket . liston(1)

Teacher's Signature : _____

Date.		
No	26	

Expt. No. 11 Page No. 26
white (1:
forint ("They somen is nearly to neceive")
connection societ, adds = somer socket, acception
Sentence = connection socket , recv (1024), decode ()
tian At the second seco
l=file. read (1024)
connection, Socket, send (1. emode())
forint ("In Sent contents of '+ sortence)
gik · close () connoc-Hon-Socket · close ()
CHINGVAISI SCORE COSE LY
Teacher's Signature :

OUTPUT '-

The somer is ready to receive such contents of sorver UDP, by
The somer is mady to receive

	Date
Expt. No	Page No. 27
6×paiment 12:-	
ADM: - Using UPP sockets, write a client-so	turn theatom to make client
sending the file name and the sex	
the prepuested file if present.	
Client UB. Fo	
from south import*	
SorverName = "127.0.0.1"	
gruerPart = 12000	
dientsadet = sedet CAF INET, SOCK OFFEAR)	
sortona = input (" in Enter like name: ")	
clientSorket. Sendto C lytes Contince, "Utf-8"), C serv	en Nome, somen for f)
file contents, serverAddress = client-Sectet. necropson (2	048)
fount K'in Reply from server: in")	
fourt f(" filecontents, decade (" Uff-8"))	
# la lie Alt contact	
# for i in fik contents!	
# frint (ga (i), ord = ")	
Client, Socket, dose()	
client. Socket. doco	
C+ ++208 by	
Soveroof by	
from societ import"	
Server Part = 12000	

sonoisodet = sadel (OF_DIET, SOCK_DOLLAN) Sown Salet Lind ((1270.0.1", sover Port))

Teacher's Signature:

	Date
Expt. No. 12	ge No. <u>28</u>
frint (" The server is mendy meceive")	
while 1:	
sentonce, client Address = server Socket, arecufrom (2048)	
sentence = sentence, decode (" uff-8")	
file = efron (sentonce, " s, ")	
l = file. Great (2048)	
sover Socket, sonoto (lytes (11, "off-8"), dicotto dos)
brints ("In Sort contents of " and = ")	
print (xentence)	
# for in sentence:	
# print (sta(i), ond = ")	
file. USe ()	

Teacher's Signature : ___