Deg no: 1921/11/12 sub code: CSA1361. (Atm: waste a c. porogonam for DfA for the given language oreporesenting storings that stant with a and end with 'a' # Include a stote hs # Include < stracting. h> main () chass [10]; A = la'; nut cons Portnt of ("Entan the stating: "), Scanf (+ 1. 5 : 5); in = staten (s); for (fut P=0, 1/2 n: 1++) { + [es[+] = -1a" || s[i] = = 12") gelse point ("INVACIDY; boreak :

Name: k. Solee Dioga

1 (5/0) - · A R& S[n-1] - · A) Round of (" The storng was accepted"); Praint f ("NOT DFA"); output: Enles the storng: aaaabbaa. The storing was accepted. Am: worke a C-porgam for DFA foir the given language exepassenting strings that starts with 0 and end with 1. balodam: # include < stdio. h> # Puclude < stowing. h> # define MAX 100 but mater Chan stor [manij fila's Put ty Porint f (" Enter the storing to be checked!);

scand Mys", stort but length: starten (star); of (sta 80] == 0'88 sta Though 1] == "1") party ("Accepted"); else paint (" Rejected"); aretuano; output: Enteri the stating to be checked: 00011 Accepted. Alm: wante a C-paragoram to check whether a given storing belongs to the language defended by a CFG A -OA (IA) & S-OAI Parogoram o # include < stdfo.h> # Include < storing. h> but main (). Chas s[100];

Put i, flag;

Fut &;

starting to check, Rathet Il Fideor a Atan 1 (">5",5)? 1 - station(s); for (= 0; +2 0; +++) 4 (51171 = 0,88 31171 = 1) flag=0; 9 (flag 1=1) part 11" storing is not valed (n'); 9 (flag!==!) } (CS[07==!0',63[1-17=='1-) Port of 1" storing 1's accepted"); point 11" storing is not accepted [hi]; output? Endor a showing to check : 00, storing as accepted.

C-pologgam to check whelles a given storing belongs to the language defined Ly a CFG 5 -> DSOLLSILDING Progotam: # Include 2 stdlo. h> # Include a storing. h> # define man 100. but main () chan star [man, f.= a'; portet of ("Enter the storing to be checked:"); BCan + ("Y S", Aus); but length . shorten (sta); of (stato) = = stattength - i] 22 statij = = stat length-27) point { ("Accepted"); Parent 11" siejested 1; Jetuan 0% storing to be checked. 10000

6) Alm: weste a c. p. signiam to check whether given storing belongs to the language defined by CFG S→OSOIA A→IAI & porogoram: # Prolude < stollows # Pucludo < storing.h> Ped main () Chan S[100]; int; flag, flog1, a, b: that I, Court, Courts; point 10 Enteria storing to check " Scanf ("+5", 5); e= staden(s); flag = 1; for (1=0; 1<0; 1++) flag = 0; if (flag 1 = 1) Paint f ("slowing to not Nalid In"); 9(Glag==1) P=00 Count 1=00 while (S[i]==10)

count tot + ; 6442 white (5877 - 11) plag1:19 Count 2:07 (121) openous elsa if (blag 1 == 1) of (Court 1 = : Counts). Parent for the stearing salingies . The Condition el-çe potents "The steering doesnot satisfy the andition or morning;

Point ("staring not accepted"); Ewles a storing to check: 000011111 The strating doesnot satisfy the condition of steeling not accepted. 6) Alma waste a copologiam to check istrather a given sturng belonge to the language defined by a CFG 5-05/6 Porogram: # Puchade & stdio.h> Hinclude a straing. hy Put main () Chan Sliooj; full, flag, flagl, a.b.; Put I, County, Courtz, Paintfl' Enter a storing to checking . Scanf ("18" s); 1 = efcalents); flag=1; for (9:09 9 < 19944) (3(1) = 1(1) 2.80 (0 = 1(1) = 1.

3 34(180g==1) Count 1=0 ; whale(s(T== 1) of (flog! = 1) Pornt 1" The straing sortisties the Consistion");

Parutfl" stowing accepted "); else Printfl" The storing does not satisfies the Condition ") Pound | "not accepted"); output o Enter a storing to check: 000 The storing does not satisfy the Condition. (9) Am: watte a c-protogotam to check whether gitten storing belonge to the language deformed by acted S-s Alola, A-soulalg & more bound # include 2 stdo b> # include 1 storing. h> int maines Chas 5[100]; Put i, blog, flags, il tup Parkt f ("Enter a strong to check "); seant ["4.5", 5); 1. stalen(s); 1- stoden(s);

3. f (26.11=0.8822[4] ?== 11) } flag = 0; of (flag: =1) portf(" storing ? s Valed 'n"); portul (" starting 48 not valed (n"); of (1pd==1) fog (1:00 12 1-2; (++) for (2(6) = = 11) g of (2(6+1)==,0,88 2(6+2) ==,1,1) flag 1= 1; "Substituting 101 does not entit. Aring not accepted (n"); Enter a storing to check - 11111 storing be valled substanting 101 does not exist

& Plm: worthe a c-purogram to simulate a NC the given language expense senting stainings to dad with band and with a Pologeam: # Puclade < state by # holide L.downg. h> Sut mash () Chas 8 (10), 5: 6. A: gut n, cros portat of 1" Enter the etaing Scanf ("-15; 5); h = staden (s); for Cout 9=0 ; 1 < n ; 1++1 if (s(P)== 16'|| s[P]== 1a') Portut f ("Puralled"); baleak ; of (1=0) point of " The stocky was accepted");

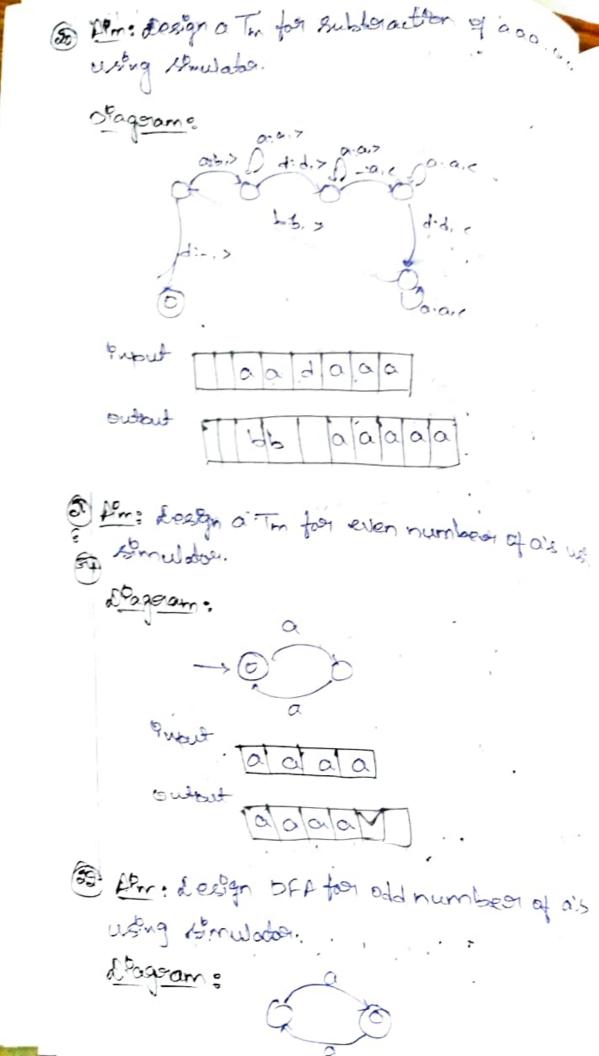
```
elce
     potent f("not DFA");
          Enter the staring: 100
         an valid.
a April wastite a cr portogram to stroubable a
  NFA for the given language oroporesenting
  storings that storie with 0 & end with 1.
  bardaram :
  # include a std Po.h >
  # Anchede < strong. h>
  (ut main ()
   chas SS107, B= 0, A= 111
   Put N, C=0;
   Portet fil" Enter the storing:");
   scan f ("15", 5);
   h= staten (s);
   fog (Put 900,9Km; 9++)=
```

	part-("Ruvald");	
	boreak;	
	3	
	A (c=:0)	
	Pf (5107 = 1888 5[0-1] = A)	
	Point 1.1" The storing was accepted",	
	else	•
	Period f (" Not NFA");	
	z	
	output: Enterer the strong = 11111	
	not NFA.	
2	APm: To design a DF.A for Proput storting, and bac'using simulation.	0
	and bac using simulation.	
	Dagram:	
	$\rightarrow 0$	
	bac- pinput	
	bac output.	

using simulator. (1) Am. Design a port for an Lin water Emelder B. all all: For any lelee c Aimo Design Tom for input storing an Li custing simulatoa. a:a; geory g.g.x . . g.g. 5. cutput ccdd'

nessung APm: Design Tim for Propert shasing and Smulator. Diagolam: aicis O pars 1:6.2 Cicir To a a b b ! CC HO6 ARM: Design a Ton for Suport storing taling ab a ba using simulator. Ropul

to comple uchy strubbon. -- 7 ace -c d 9 a Am: Design a Tm for addition of 'oa' and 'aaa' using is mulates. a 9



Pupul ajaja. owput aaaM (3) Aim: Design DFA to accept the stating end with b over set {a,b} 10 = a a a bab warning sprulator. Diagonam: -S-6-60 alalabab output aaa bab Amo Design a both to accept the storing having 'ab' as substating other the set {a,b} -0-a 0-b 0-b. Pryput: output: [a a a a b] (25) Atmo Design DFA using simulator to accept the storing start with a con b the set {a,b} Diagoram ?

à a 1 a a VI owput DAME Design Im for accept the Propriet strong with ab over set {a,b} we abbaabal Stageam: Proput output. Design D.F.A. with a sing & malata accept the input slowing bo", "C'E" boos Dagoam! Exput [6 caaaa output ibicaaav (30) Atmo Design NFA to accept, any numbers being Armelador. Diagram. input a a a a a a a a