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NP-Hard

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Back Stock

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NP-Hard

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(SA)

(SA:2) (SA:1)

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(MODM)

(SA:2) (SA:1)

(SA:1)

(MUMC)

(SA:3)

(SA:2)

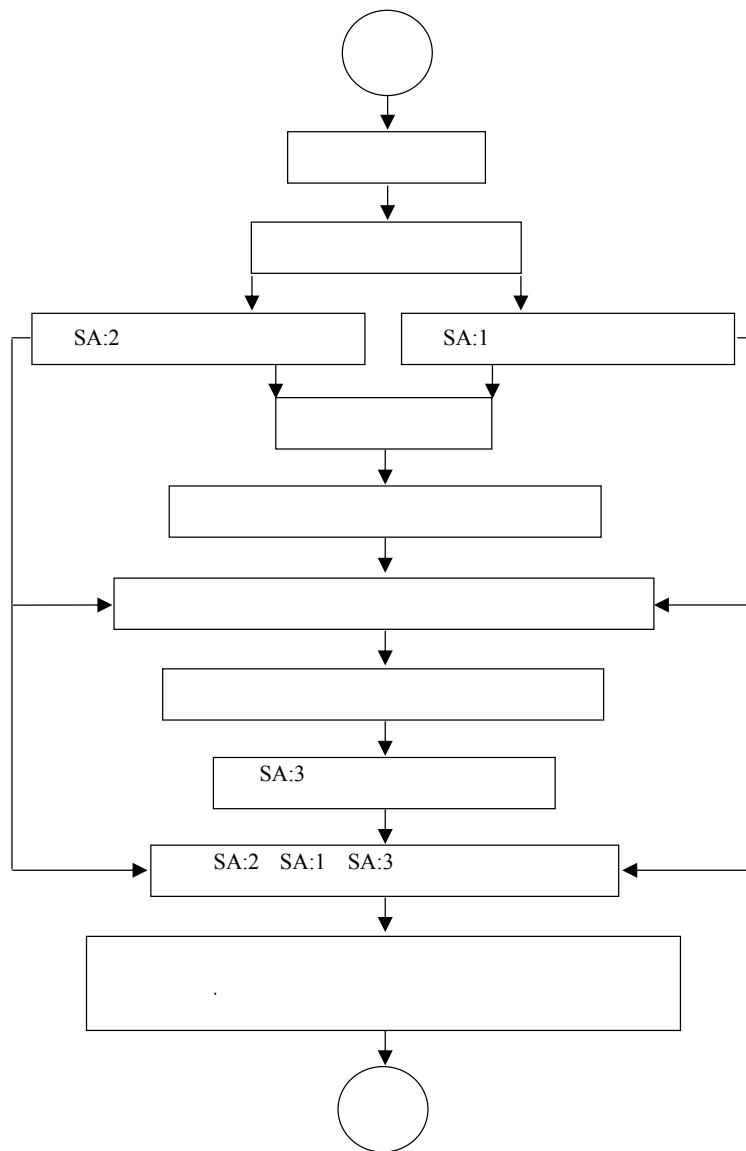
(MUMT)

(SA:3)

(SA:2) (SA:1)

%

()



Gam T₀ T

:Total

:Accept

n

n

):

:Percent

(

$$\left[0, \frac{1}{n}\right), \left[\frac{1}{n}, \frac{2}{n}\right), \dots, \left[\frac{(n-1)}{n}, 1\right]$$

:Count

$$(Accept / Total) * 100 < Percent$$

Count

Count Percent Accept Total

(SA:1)

(SA:1)

:F(S_C)

:F(S_{1C})

(SA:1,2,3)

Gam Percent A₅ A₁

:F(G_C)

:S

$$:e^{\left(\frac{D_s}{T}\right)}$$

:S₁

D_S

:G

(0,1)

:u

:T

$$D_S = F(S_{1C}) - F(S_C)$$

()

:T₀

D_G

:Gam

(SA:2)

$$D_G = F(S_C) - F(G_C) \quad ()$$

(SA:1)

(SA:2)

- :F(S_T) T=A₁ , T₀=A₂ , Total=0 , Accept=0 , Count=0
 F(G_C) F(S_C) G S
 :F(S_{IT}) T<T₀ Count=A₃
 :F(G_T) S₁
 - D_S F(S_{IC}) S
 :e^(-D_S/T) D_S<0
 D_S F(S_C) S F(S_{IC}) S₁
 - Accept=Accept+1 D_G
 D_G<0

D_S=F(S_{IT})-F(S_T) () Count F(G_C) G 0 F(S_{IC}) S₁
 D_G u < e^(-D_S/T)
 : F(S_C) S F(S_{IC}) S₁
 D_G=F(S_T)-F(G_T) () Accept=Accept+1
 Total=Total+1

(SA:2)

T=A₁ , T₀=A₂ , Total=0 , Accept=0 , Count=0 (Accept / Total)*100<Percent
 F(G_T) F(S_T) G S
 T<T₀ Count=A₃ Total=0 Count=Count+1
 S₁ T=Gam*T.
 D_S F(S_{IT}) S () Accept=0
 G

$Accept > A_5 \quad Total > A_4 \quad .$
 $D_S < 0 \quad .$

$(Accept / Total) * 100 < Percent \quad .$

 $F(S_T) \quad S \quad F(S_{IT}) \quad S_1 \quad .$
 $Accept = Accept + 1 \quad D_G$
 $D_G < 0 \quad .$

$Count = Count + 1.$
 $Total = 0 \quad T = Gam * T.$
 $Accept = 0$

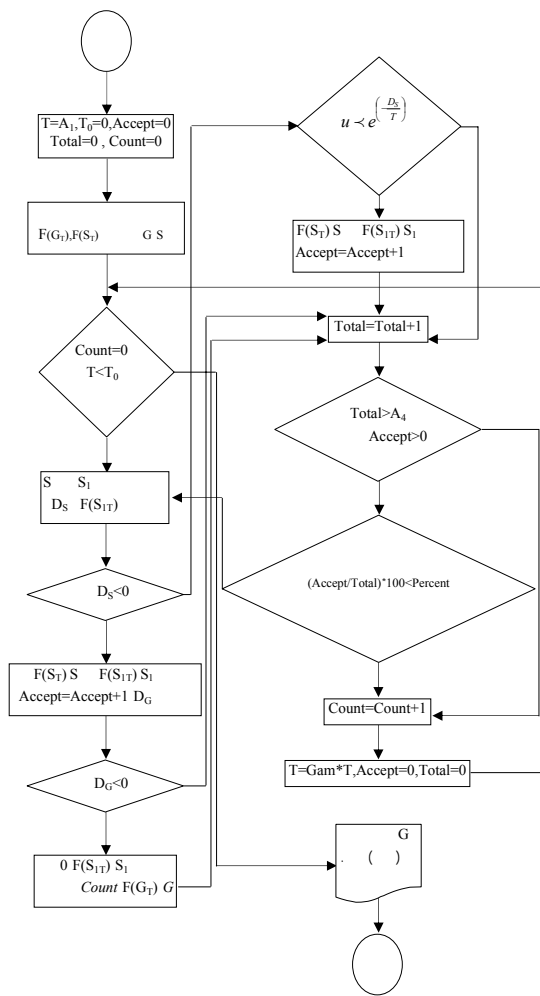
$(\quad) \quad G.$

 $Count \quad F(G_T) \quad G \quad 0 \quad F(S_{IT}) \quad S_1 \quad .$
 $u < e^{\left(\frac{D_S}{T}\right)}$

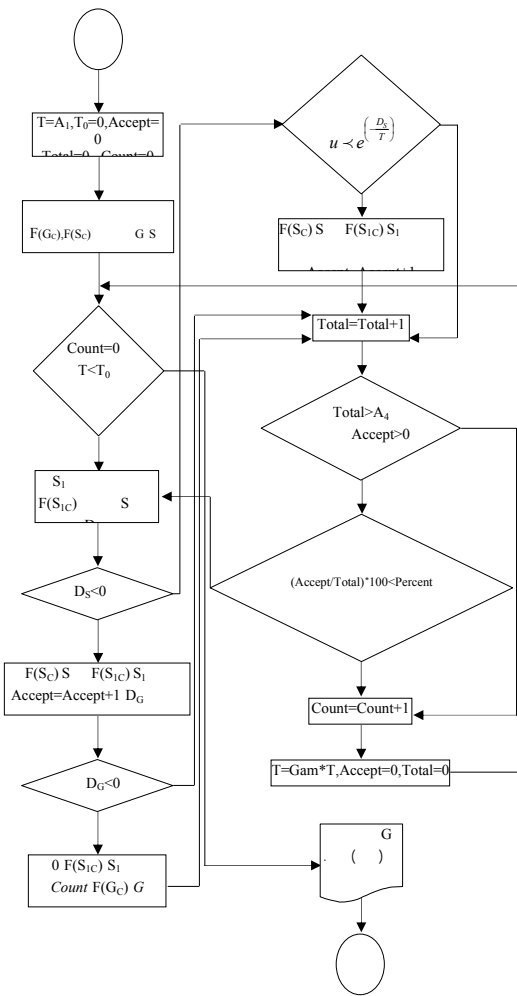
(SA:2) (SA:1)

$(\quad) \quad (\quad)$

 $F(S_T) \quad S \quad F(S_{IT}) \quad S_1 \quad .$
 $Accept = Accept + 1$
 $Total = Total + 1.$



(SA:2)



(SA:1)

	D_{SC}			(SA:3)
:				
	$D_{SC}=F(S_{1C})-F(S_C)$	()		
	D_{GIT}			
:				(SA:3)
	$D_{GIT}=F(S_{1T})-F(G_{1T})$	()		:G
	D_{GIC}			:G ₁
:				:F(S _T), F(S _{1T}), F(S _C), F(S _{1C})
	$D_{GIC}=F(S_{1C})-F(G_{1C})$	()	(SA:1,2)	
	D_{GT}			:F(G _C)
:				
	$D_{GT}=F(S_{1T})-F(G_T)$	()		:F(G _T)
	D_{GC}			
-				:F(G _{1C})
:				
	$D_{GC}=F(S_{1C})-F(G_C)$	()	()	:F(G _{1T})
	(SA:3)			
	$T=A_1, T_0=A_2, Total=0, Accept=0,$ $Count=0$		()	
	G_1, G, S_1, S			
	$F(G_{1T}), F(G_{1C}), F(G_T), F(G_C), F(S_T), F(S_C)$			$:e^{\left(\frac{D_{SC}}{T}\right)}$
	$T < T_0, Count=A_3$			D_{ST}
	S_1			
D_{SC}, D_{ST}, S			$D_{ST}=F(S_{1T})-F(S_T)$	()
	$F(S_{1C}), F(S_{1T})$			

(SA:1,2) . $D_{ST} < 0$.

((SA:2)) ((SA:1)) . $D_{GIC} D_{GIT}$.
 $D_{GIC} \leq 0 D_{GIT} \leq 0$.
 $D_{GIC} > 0 D_{GIT} > 0$

(SA:3) . $D_{SC} < 0$.

(SA:3) . D_{GIC}, D_{GC}, D_{GT} .
 $D_{GIC} < 0 D_{GC} < 0 D_{GT} \leq 0$.

(SA:3) $F(S_C) F(S_T) S$ $F(S_{IC}) F(S_{IT}) S_1$.
 0 $F(G_{IC}) F(G_{IT}) G_1$.
 () $Accept = Accept + 1$ Count
 $u < e^{\left(\frac{D_{SC}}{T}\right)}$.

(CD) $F(S_T) S$ $F(S_{IC}) F(S_{IT}) S_1$.
 CD $Accept = Accept + 1$ $F(S_C)$
 $Total = Total + 1$.
 $Accept > A_5 Total > A_4$.

(Accept / Total) * 100 < Percent .

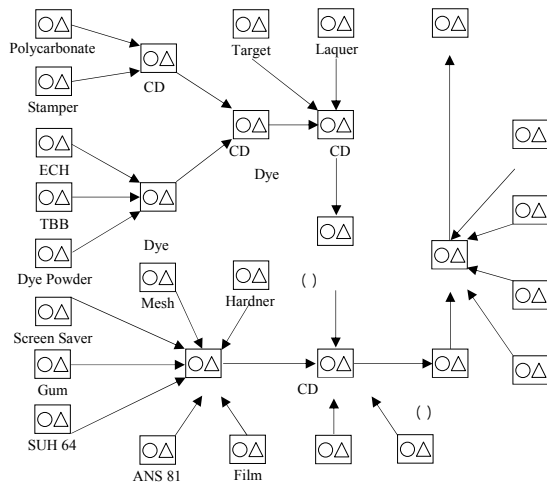
) CD / / ($Count = Count + 1$.
 $Total = 0$ $T = Gam * T$.
 $Accept = 0$
 () G_1 .

() (SA:3) (SA:2) (SA:1)
)
 ((SA:3) (SA:1,2)

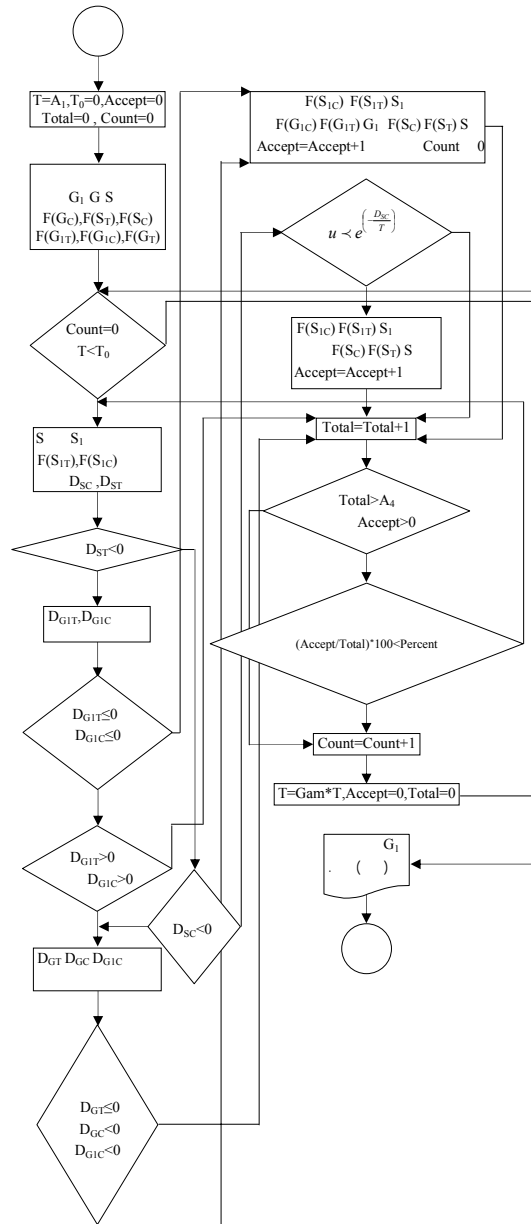
Percent

()

{
→ = / / = }
(SA:1)



(SA:3)



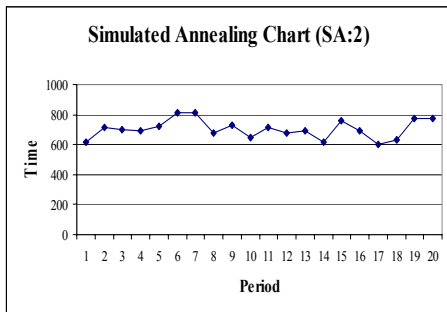
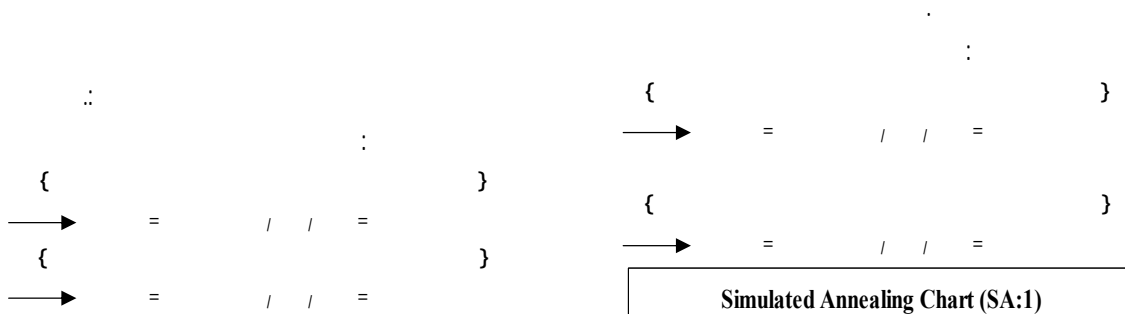
(SA:3)

.CD :

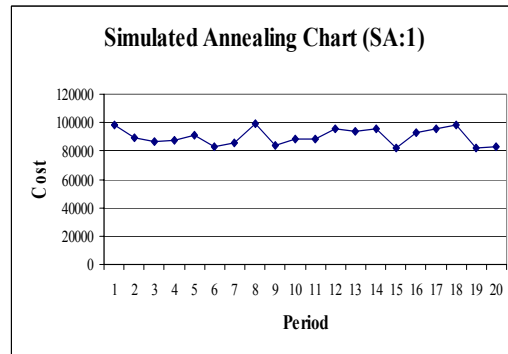
/		- Satti	ANS 81	/	/	-Makrolon	Polycarbonate		
/		- Sericol		/	/	- Lexan			
/		- Kiwobond		/	/	- Lupilon			
/			Film	/	/	- Panlite			
/				/	/	- Wonderlite			
/	/	- Sericol		/	/	- Hamatech		Stamper	
/	/	- Dubuit		/	/	-H.T.C			
/	/	- Tong Jou		/	/	- Tiko jon	ECH		
/	/	- Pancolor		/	/	- Humanki			
/	/	- Astinum		/	/	- Kain hen	TBB		
/	/	- Kamman		/	/	- Tiko jon			
/	/	- Hankey		/	/	- Humanki			
/	/			/	/	- Kain hen	Dye Powder		
/	/			/	/	- Ultergreen			
/	/			/	/	- MY-317			
/	/			/	/	- PO1			
/	/			/	/	- UG			
/	/			/	/	- Hamatech	Target		
/	/			/	/	- x			
/	/	CD	Dye	/	/	- Tong Jou	Laquer		
/	/	CD		/	/	- Satti	Screen Saver		
/	/	CD	CD	/	/	- Sefar			
/	/	CD	Dye CD	/	/	- Satti	Mesh		
/	/	CD	CD	/	/	- Sefar			
/	/	CD	()	/	/	- Satti	Hardner		
/	/	CD	CD	/	/	- Sericol			
/	/	CD	()	/	/	- Koatazol			
/	/	CD		/	/	- Satti		Gum	
/	/	CD		/	/	- Sericol			
/	/			/	/	- Kiwobond			
/	/			/	/	- Satti	SUH 64		
/	/			/	/	- Sericol			
/	/			/	/	- Kiwobond			

(SA:2)

(SA:1)



-(SA:2)



-(SA:1)

.CD

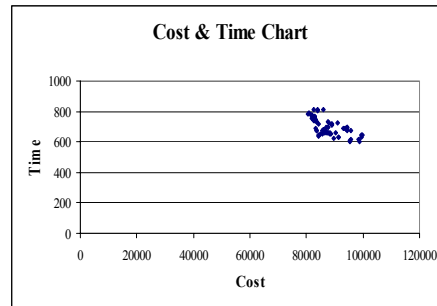
.CD

() ()

$$Y = -633 \ln(x) + 7948.5$$

$$Y = 725 \longrightarrow X = 90357.78 \approx 90358$$

$$\longrightarrow 90358000$$

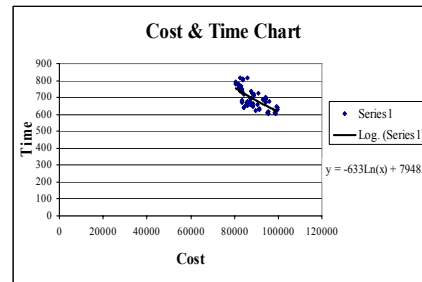


.CD

$$\{ \longrightarrow = / / = \}$$

(SA:3)

(SA:3)



.CD

$$\{ \longrightarrow = / / = \}$$

$$\{ \longrightarrow = / / = \}$$

$$\{ \longrightarrow = / / = \}$$

$$\{ \longrightarrow = / / = \}$$

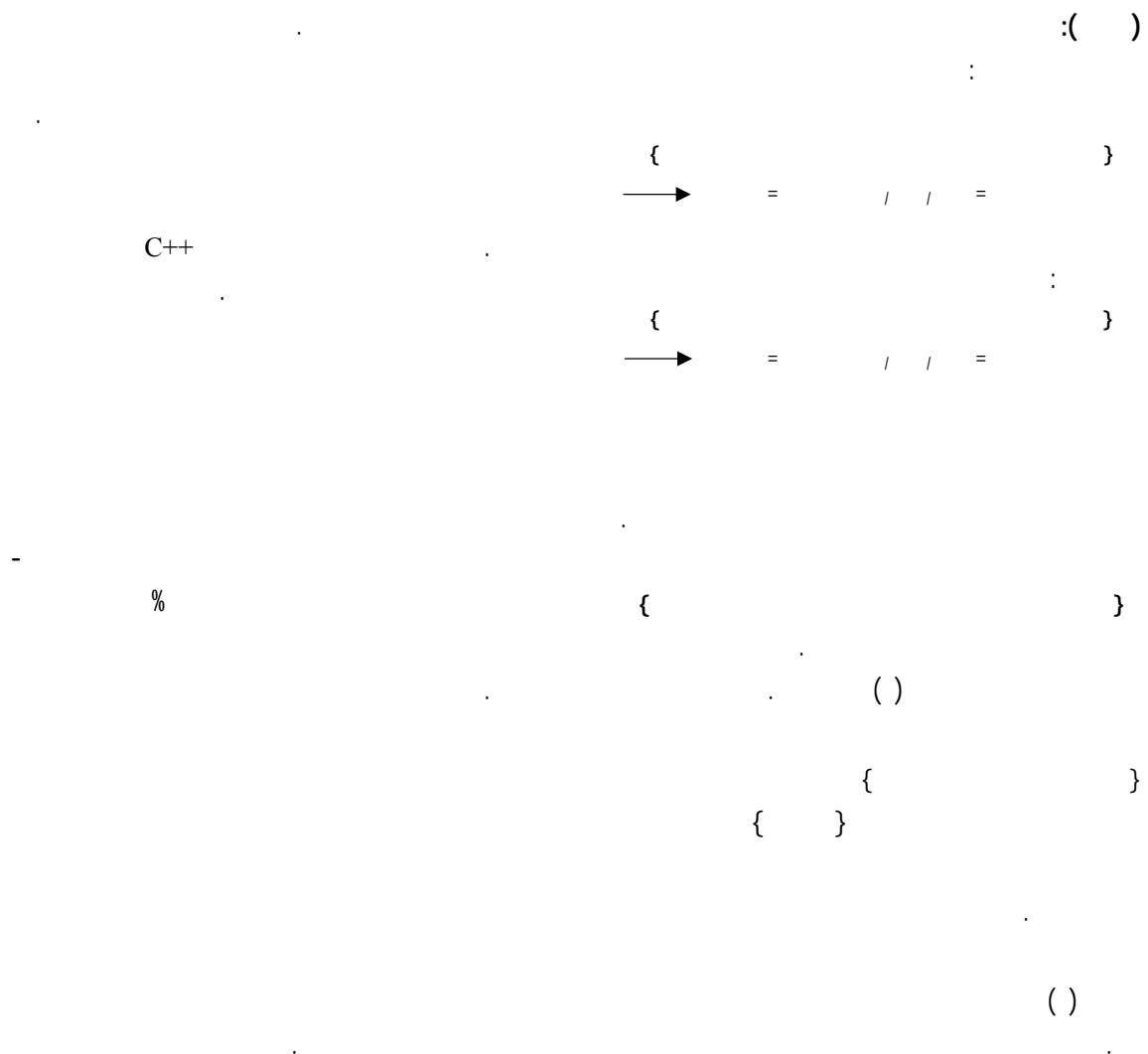
$$\{ \longrightarrow = / / = \}$$

$$[/ /]$$

$$[/ /]$$

.CD

	/ /		- Wonderlite	Polycarbonat	
	/		- H.T.C	Stamper	
	/		- Humanki	ECH	
	/		- Kain hen	TBB	
	/ /		- MY-317	Dye Powder	
	/		- x	Target	
	/		- Tong Jou	Laquer	
	/		- Sefar	Screen Saver	
	/		- Sefar	Mesh	
	/		- Sericol	Hardner	
	/		- Sericol	Gum	
	/		- Kiwobond	SUH 64	
	/		- Kiwobond	ANS 81	
	/			Film	
	/ /		- Pancolor		
	/		- Astinum		
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|--|--------------------|--------------------|
| 1 - Lee | 2 - Billington | 3 - Pagel |
| 4 - Lawrance | 5 - Varma | 6 - Landsom |
| 7 - Lander | 8 - Online | 9 - Pulling System |
| 10- Fukuda | 11 – Kaplan | 12 - Song |
| 13- Liu | 14- Zhao | 15 - Graves |
| 16- Croos Functional Teams | 17 - Spanning Tree | 18 - Multi Echelon |
| 19- Zeng | | |
| 20 - Sharp Oliver & Palovich Busygin | | |
| 21 - Simulated Annealing (SA) | | |
| 22- Multiple Objective Decision Model (MODM) | | |
| 23 - Minimizing Unit Manufacturing Cost (MUMC) | | |
| 24 - Minimizing Unit Manufacturing Time (MUMT) | | |
| 25- Compact Disk (CD) | | |