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I. D: 13835.

Subject: Business Processing Engineering.

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Question(1)

(A) Define General process chart and how it characterize the process?

General process.

A series:

(i) Summarizes the current process the redesigned process and the expected improvements

(2) (Characterizes) the process by:

- the number of activities per category
- the amount of time spent in each activity category
- the percentage of the total processing time spent on each category

(B) uml modeling language include = that these diagrams have the propective to turn into extremely complicated bor the reason that their person-friendly mother nature may well lend by itself to an all-inclusive description. In other texts since it is so simple to exhibit the data linked to the venture why not consist of all of it) when an analyst has a massive job, generating a one overly advanced diagram can be a temptation Nonetheless, as one particular writes notes" if you are using action diagrams to define the structure of a works circulation you really should not attempt to examine many amounts of

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Exercise graphs down to their most atomic amount. In its place an analyst needs to try out to current a new diagram for single function mode or it for more applicable to use swim lanes to existing distinct actors within just the identical get the job done flow.

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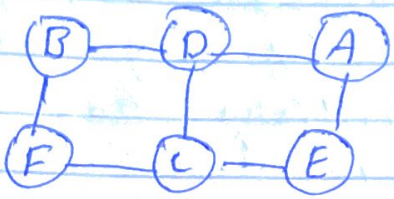
Q) i (part

current design



proposed design

	A	B	C	D	E	F
A		20		30		80
B			10		75	
C				15		90
D					70	

Ans: LD calculation for two Designs.

		Current Design		proposed Design	
Centers	Load	Distance	LD score	Distance	LD score
(A, B)	20	2	40	1	20
(A, D)	20	1	20	1	20
(A, F)	80	3	240	3	240
(B, C)	10	2	20	1	10
(B, E)	75	3	225	1	75
(C, D)	15	1	15	3	45
(C, F)	90	1	90	1	90
(D, E)	70	2	140	1	70
Total			790		570

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Question 2

(A) The observation periods for 3, 6, 5 and 2 jobs are 10, 20, 20 and 10 mint respectively. In others words, the WIP was jobs for 10 mint, 6 jobs for 20 mint, 5 jobs for 20 mint, and 2 jobs for 10 mint then calculate the average WIP.

Ans

The average WIP is given by:

Average WIP = 3+6+5+2/4 = 4 jobs

When the observation periods are irregular. They are not all of the same length then the average WIP calculation must account not only for the numbers of jobs in each periods but also for the length of the periods. jobs in each periods but also for the length of the periods

Suppose that observation periods in our previous WIP is calculated as follows.

Average WIP = 3x10+6x20+5x20+2x10/10+20+20+10

= 4.5 jobs.

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Question (2) (B)

Ans 2(B)

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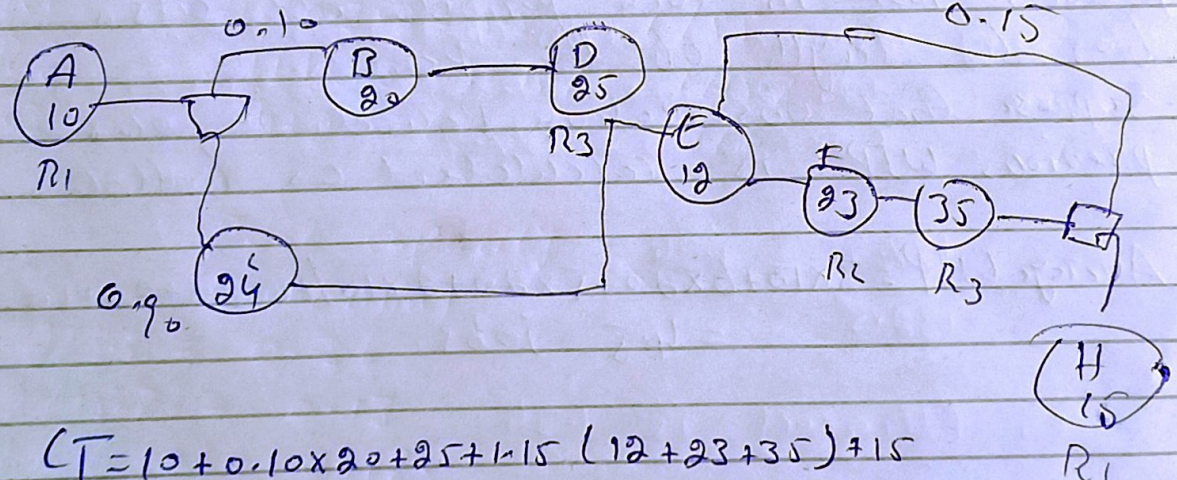
Activity	Waiting time	Processing time
A	20	12
B	15	18
C	5	30
D	12	17
E	3	12
f	5	25
G	8	7
H	5	10
i	15	25
J	5	20
K	4	10



$CT = 10 + 0.10 \times 20 + 25 + 1.15\,(12 + 23 + 35) + 15$

$= 10 + 2 + 25 + 1.15\,(70) + 15$

$= 52 + 80.5 = 132.5$

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(ii) Calculate C.T Efficiency.

Activity Time	Waiting time	Processing (min)	Activity time (min)
A	20	12	32
B	15	18	33
C	5	30	35
D	12	17	29
E	3	12	15
F	5	25	30
G	8	7	15
H	5	10	15
I	15	25	40
J	5	20	25
K	4	10	14

Processing time = 12 + 0.10 x 18 + 30 + 1.15 (17 + 12 + 25) + 7 + 10 + 25 + 20 + 10 + 12 + 1.8 + 30 + 62.1 + 7 + 10 + 25 + 20 + 10 = 177.9

$= \frac{177.9}{132.5} = 1.34$

CT Efficiency is 1.34

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Q3

Activity	Process time (min)	Resource Requirements	Number of Jobs.
A	2	R1	1
B	5	R1	0.3
C	8	R2	1
D	3	R2	1.1
E	4	R2	1.1
Inspection	4	—	1.1
F	2	R1	1
G	4	R3	1
H	2	R3	1

Pool capacity calculation for example

Resource	Unit load (min)	Unit capacity (job/min)	Available Resources
R1	2+5×0.3+2 = 5.5	1/5.5	2
R2	8+1.1×(3+4) = 15.7	1/15.7	2
R3	4+2 = 6	1/6	1

Pool capacity (job/min)

2/5.5 = 0.36

2/15.7 = 0.13

1/6 = 0.17.

Ans

Q4 Ans:- Toc Methodology

Step 1: Identify the constraint
This tells us where to focus improvement efforts, since we know that only an improvement at the constraint makes a difference.

Step 2: Optimize the constraint.
Before adding capacity, we need to use the capacity we already have.
"Optimize" in this sense means "doing everything possible to use the constraints to its fullest capacity.

Step 3
Subordinate the non-constraints.
The job of all non-constraint is to subordinate their decision to the constraint's needs. They should optimize for constraint (and thus system) performance, not their own individual performance, the result of which we witnessed in Post #10.

Step 4 Elevate the constraint.
→ only once we've completed the privious steps does it make sense to add more constraint capacity and thereby increase system performance Because adding capacity is tremendously expensive in terms of time and money, we do it as a last resort, not a first resort.