

IQRA NATIONAL UNIVERSITY

SUMMERS 2020 Final-Term Examination

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| --- | --- | --- | --- | --- | --- |
| **Course Name** | **Course Code** | **Max. Marks** | **Max. Time** | **Date** | **Instructor** |
| Business Process Engineering | SEE-306 | 50 | 4 Hours  9-1 PM | 29th Sep, 2020 | Aasma Khan |

* **Attempt all questions.**
* **Marks will be given as per the DEPTH of the answer, not LENGTH.**

**Question No: 01** (4+3+8)

a) Define General Process Chart and how it characterizes the process?

b) List disadvantages of Process Activity Chart.

c) Compute Load Distance (LD) scores for the below given current and proposed designs and identify which design is the better one;

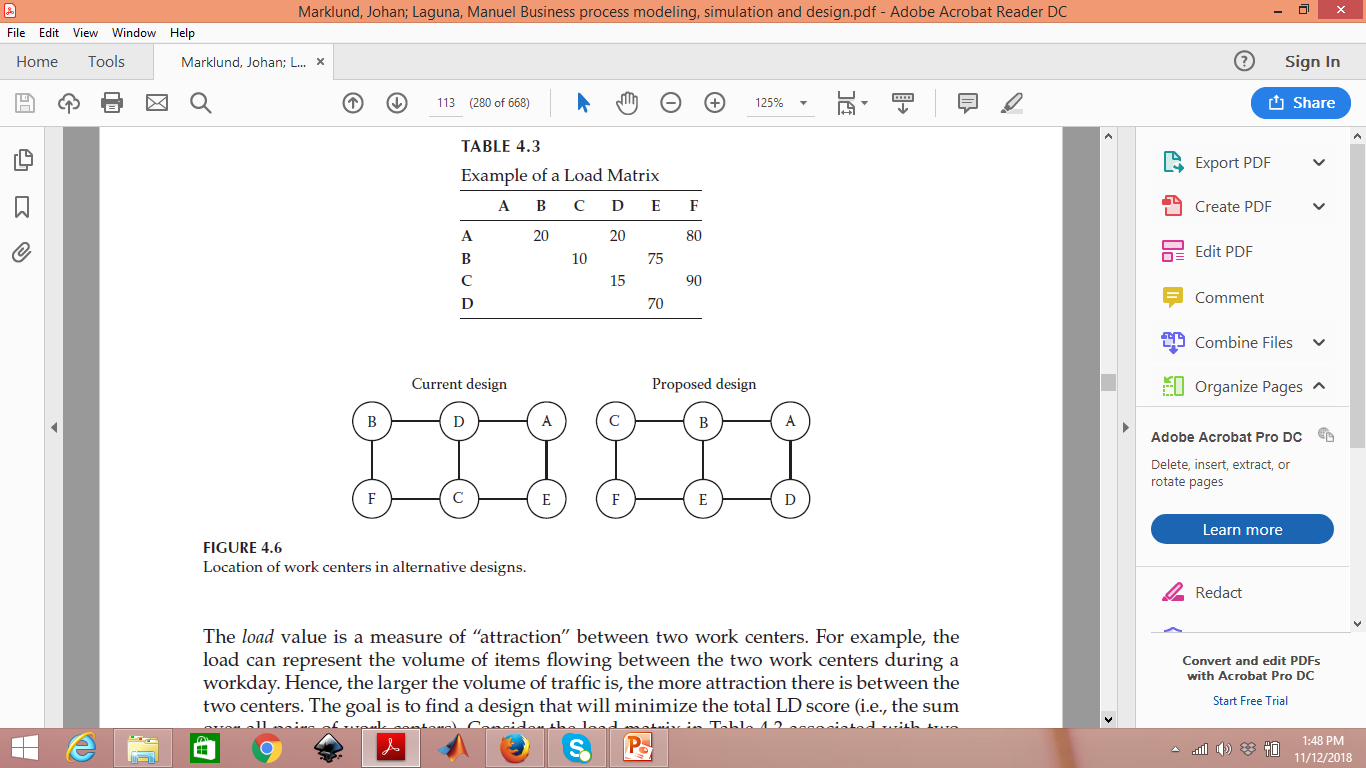


Figure 1 Two Designs

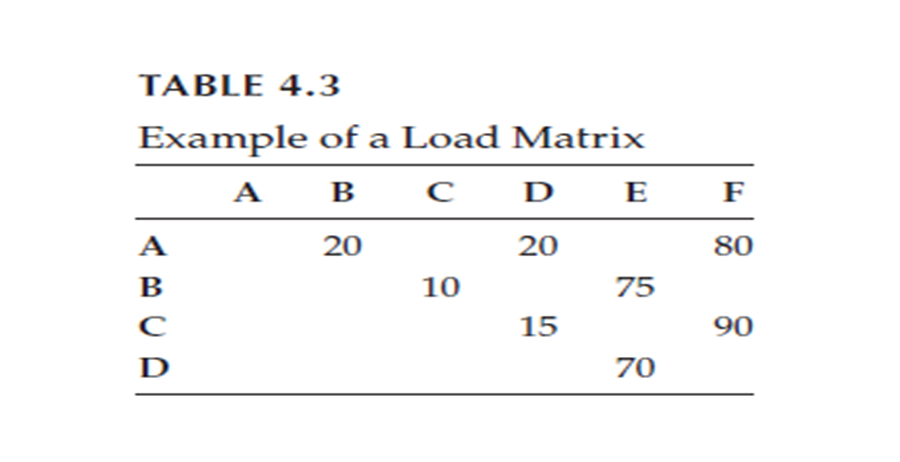
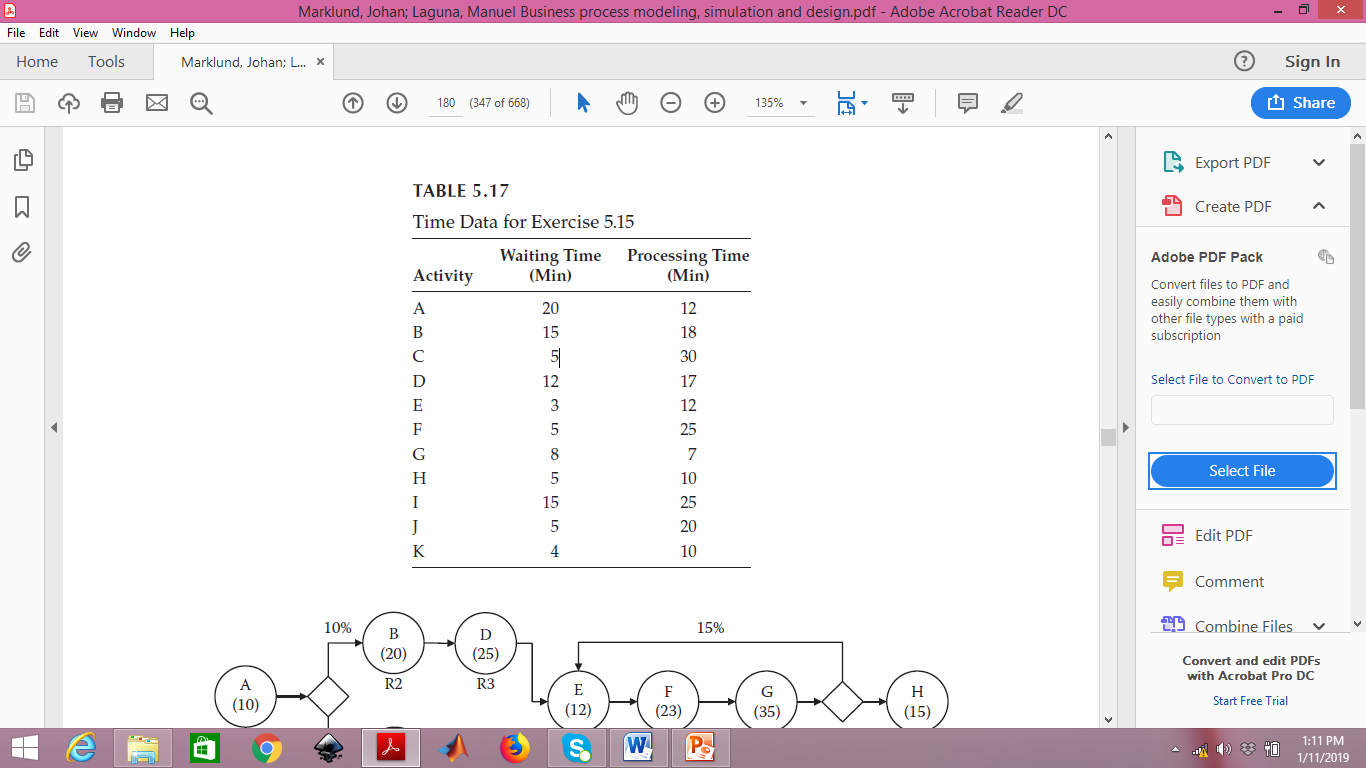


Figure 2 Load Matrix

**Question No: 02** (5+10)

1. The observation periods for 3, 6, 5, and 2 jobs are 10, 20, 20, and 10 min, respectively. In other words, the WIP was 3 jobs for 10 min, 6 jobs for 20 min, 5 jobs for 20 min, and 2 jobs for 10 min. Then, calculate the average WIP?
2. A process management team has studied a process and has developed the flowchart in Figure 3. The team also has determined that the expected waiting and processing times (in minutes) corresponding to each activity in the process are as shown in Table 1.
3. Calculate the average CT for this process.
4. Calculate the CT efficiency.



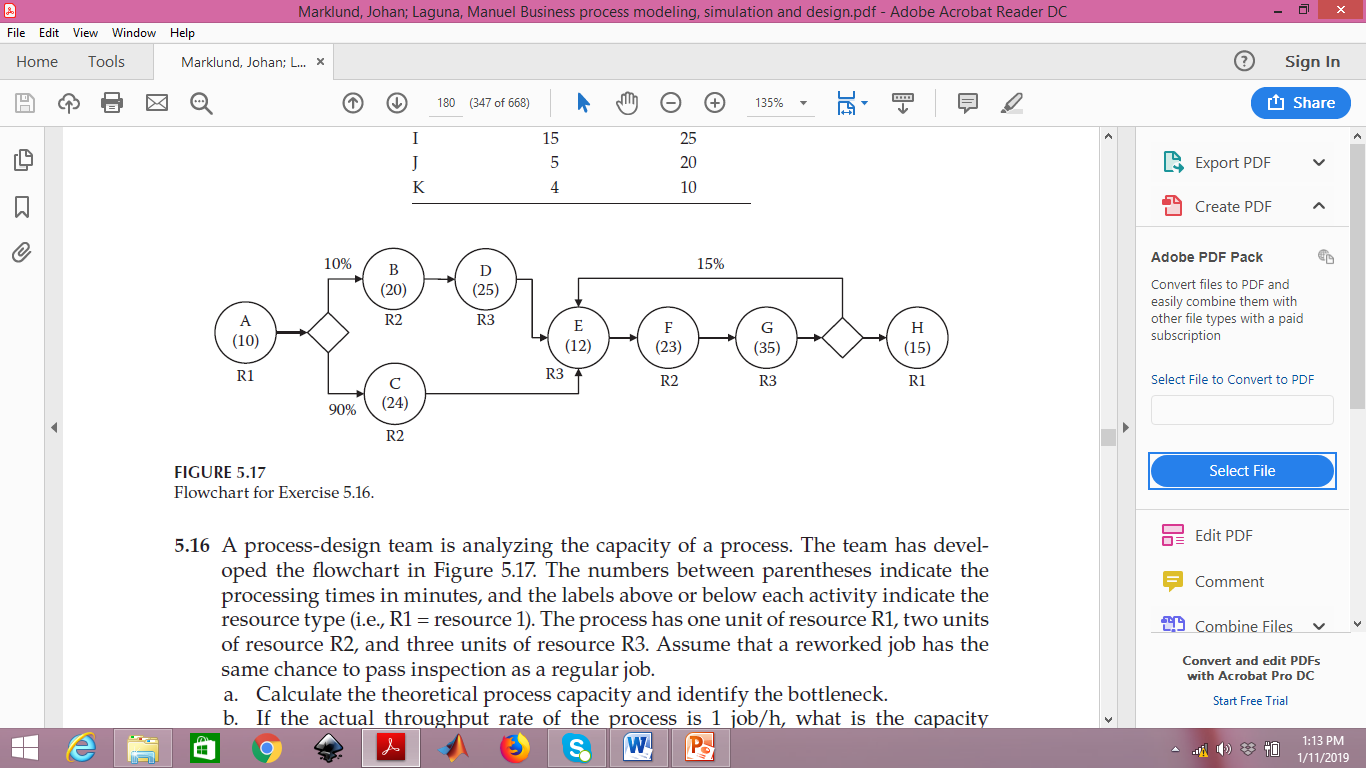
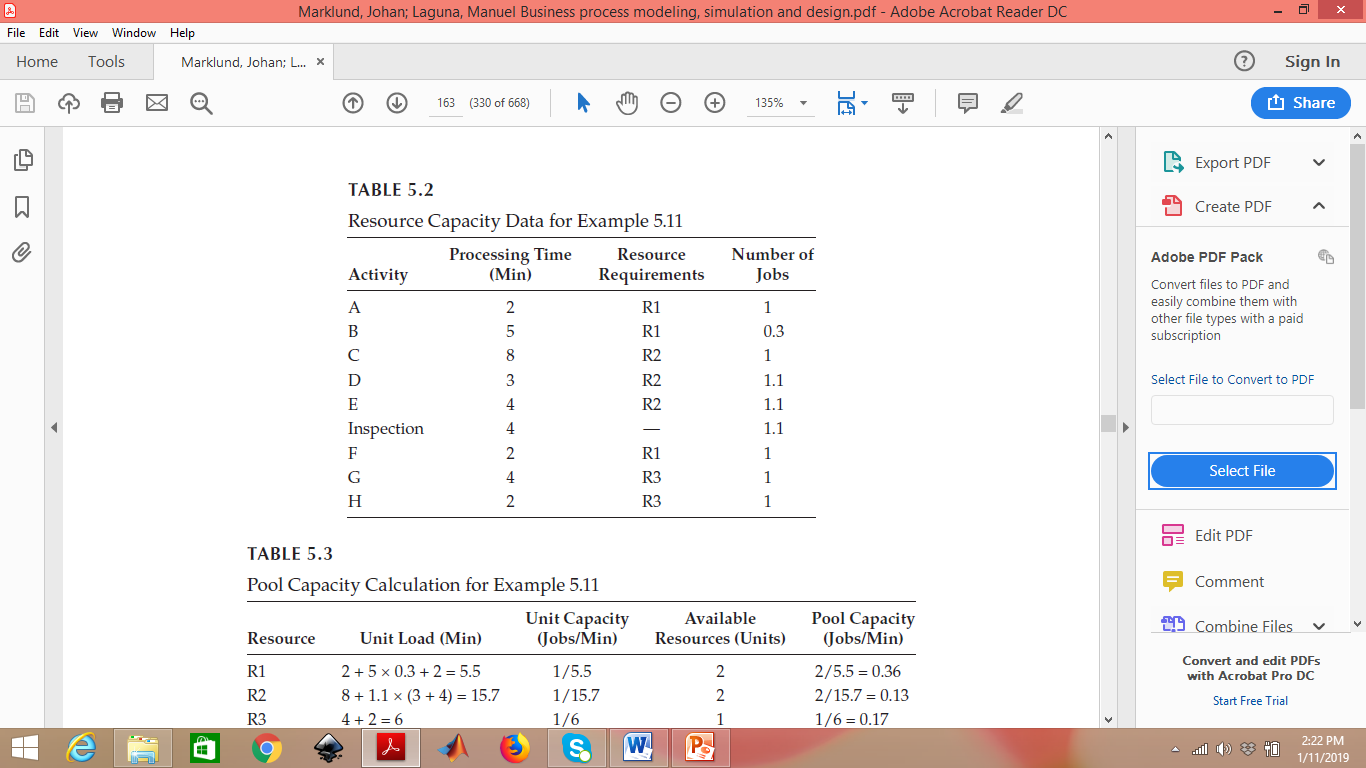


Figure 3 Process Flow Chart

**Question No: 03** (10)

Analyse capacity needs and utilization with the help of below given data and fill the given table using respective formulas;



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resource | Unit Load(Min) | Unit Capacity Jobs/min | Available Resources | Pool Capacity Jobs/min |
| R1 |  |  | 2 |  |
| R2 |  |  | 2 |  |
| R3 |  |  | 1 |  |

**Question No 04:** (10)

List the steps for TOC Methodology.

Good Luck ☺