

# PRODUCTION/ OPERATIONS MANAGEMENT (MGT613)

## Assignment No. 1

Due Date: 24-01-17

Marks: 10

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The ABC Electric Company produces LED lightbulbs. The following data on the number of lumens for 8-watt lightbulbs were collected when the process was in control. You are required to:

- Calculate Upper and Lower control limits for a Range Chart (R-chart)
- Draw the R-chart and plot the ranges of samples on it

Sample	Observation				
	1	2	3	4	5
1	687	718	684	680	689
2	716	693	712	715	694
3	706	686	685	712	713
4	713	708	707	698	690
5	711	692	689	695	704
6	718	684	690	720	700

### Instructions:

- As you have to calculate the limits and draw the R-chart, so no definition or theoretical explanation is required.
- You should consult the recommended text book for any guidance. The book is available at following link:  
[http://www.academia.edu/22804770/Operations\\_Management\\_Processes\\_and\\_Supply\\_Chains\\_10th\\_2013\\_marked](http://www.academia.edu/22804770/Operations_Management_Processes_and_Supply_Chains_10th_2013_marked)

### Important:

24 hours extra / grace period after the due date are usually available to overcome uploading difficulties. This extra time should only be used to meet the emergencies and above mentioned due dates should always be treated as final to avoid any inconvenience.

### Deadline:

- Make sure to upload the solution file before the due date on VULMS.
- Any submission made via email after the due date will not be accepted.

**Formatting Guidelines:**

- Use the font style “Times New Roman” or “Arial” and font size “12”.
- It is advised to compose your document in MS-Word format.
- You may also compose your assignment in Open Office format.
- Use black and blue font colours only.

**Referencing Guidelines:**

- Use APA style for referencing and citation. For guidance search “APA reference style” in Google and read various websites containing information for better understanding or visit <http://linguistics.byu.edu/faculty/henrichsen/apa/APA01.html>

**Rules for Marking**

Please note that your assignment will not be graded or graded as Zero (0), if:

- Any of the given instructions is not followed
- It is copied or plagiarized
- It is submitted after the due date.
- The file you uploaded does not open or is corrupt.