

K.J. Somaiya Institute of Management Studies & Research  
PGDM (Executive) 2018 – 19 Trimester V  
Operational Excellence  
End Term Examination

Time : 2 Hrs.

Marks : 25

Date : 16/12/2019

Notes 1. Question No. 1 is compulsory & carries 10 Marks.

2. Out of the remaining three questions, attempt any two .Each of them carry equal marks.

Q1. Enclosed is the Case Study of Order Fulfillment as followed in most industries in USA.

- a. Is this a process? Why?
- b. What are the root causes of the problem?
- c. How should the problem be resolved?

Q2. Information Technology is normally considered an enabler. There is another face of I.T. which has been exploited by very few organizations globally. What is that and how can it be used as a game changer? Enumerate by examples.

Q 3. In the production of transformers any output voltage that exceeds +/- 25 volts is unacceptable to the customer. Exceeding these limits results in an estimated loss of \$400. However the manufacturer can adjust the voltage in the plant by changing a resistor that costs \$1.5.

- (a) Determine the Taguchi Loss Function.
- (b) Suppose the nominal specification is 120 volts, at what tolerance should the transformer be manufactured?

Q4. Detroit Central Hospital is trying to improve its image by providing a positive experience for its patients & their relatives. Part of the image programme involves providing tasty & healthy meals. A questionnaire accompanies each meal served, asking the patient, among other things, whether he or she is satisfied or dissatisfied with the meal. A 100 patient sample of the survey results over the past 7 days yielded the following data:

| Day | No. of Dissatisfied Patients |
|-----|------------------------------|
| 1   | 24                           |
| 2   | 22                           |
| 3   | 8                            |
| 4   | 15                           |
| 5   | 10                           |
| 6   | 26                           |
| 7   | 17                           |

Set control limits & comment on the results.