

Roll No

MMIP-102
M.E/M.Tech., I Semester
Examination, December 2017
Operation Management

Time : Three Hours

Maximum Marks : 70

- Note: i) Attempt any five questions.
 ii) All questions carry equal marks.

1. a) What do you understand by operation management? How does it differ from production management? 7
 b) What do you understand by MTO, MTS and ATO? Explain them with suitable real life examples. 7
2. a) Explain product life cycle and discuss the steps during product design. 7
 b) What is simplification and standardization of product and write their advantages during product design. 7
3. a) 'DFM is a Value Engineering for manufacturing'. Do you agree with this statement? Explain. 7
 b) What is the difference between the Six Sigma and TQM initiatives? Discuss. 7
4. a) Is an ISO 9000 certification important to a firm? What are the advantages to the firm? Explain. 7
 b) Why is a Taguchi Loss Function parabolic in nature? Explain. 7

5. a) Would a Six Sigma implementation involve significant financial investment? Discuss. 7
 b) What are the merits and limitations of CRAFT? What modifications do you suggest? 7
6. a) Where would one make use of the concept of Group Technology? 7
 b) What are the different Line Balancing techniques? Explain any one in brief. 7

7. Maiden Charm (Un) Limited's beauty products, baby 'Blue', virgin 'White', sky 'Pink', daring 'Purple' and sensuous 'Black' go through two operations: Preparation and Finishing, at the respective two places and in the order. The operation times at these work centers are given below : 14

	Preparation (hr)	Finishing (hr)
Baby Blue	1	3
Virgin White	4	2
Sky Pink	5	4
Daring Purple	2	5
Sensuous Black	3	7

Using Johnson's method, how should the above items be sequenced so that the total completion time is minimized? Also find the percentage utilization time for each operation.

8. Write short notes on any two of the following : 14
- a) SWOT methodology
 - b) Kanban and Kaizen process
 - c) Delphi method
