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Roll No .....

**AU/IP/ME/TX-601**

**B.E. VI Semester**

Examination, June 2013

**Operation Management**

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks :35*

**Note:** Attempt one question from each unit. All questions carry equal marks.

**Unit - I**

1. a) What advantages are desired from efficient operations management.
- b) What do you understand by product design and development.

OR

2. a) Define productivity. Discuss the factors which increase the productivity of a manufacturing unit.
- b) Discuss and compare MTO and BTO production strategy.

**Unit - II**

3. a) Explain product life cycle when and why is it necessary to launch a new product.
- b) Discuss the service triangle of customer, provider and system in product life cycle management.

OR

4. a) Explain i) Product design by Evolution.  
ii) Product design by innovation.

- b) Discuss valerie's service quality model.

### Unit - III

5. Write short notes on :

- |                |                            |
|----------------|----------------------------|
| i) Reliability | ii) Bath tub curve         |
| iii) MTBF      | iv) Preventive maintenance |
- OR

6. a) Explain the significance of Taguchi loss function in quality maintenance.  
b) What is six sigma. Explain it's relevance in operations management.

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### Unit - IV

7. a) What are the objectives of a good plant layout. Bring out the comparison between product and plant layout.  
b) Discuss the problem of inventory flow in process layout.
- OR

8. a) What do you mean by plant location. Discuss the major factors governing plant location.  
b) Compare the advantage and disadvantages of urban and rural location for a Automobile plant.

### Unit - V

9. a) What is the importance of production planning and control in success of an business organisation.  
b) Define following terms used in line balancing.  
i) Balance delay                      ii) Line efficiency  
iii) Smoothness index              iv) Cycle time

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