

Roll No. ....

**23055**

**M.Tech. 1st Sem. (Mech. Engg.)  
(Manufacturing & Automation)  
Examination-December, 2016**

**DESIGN PLANNING AND CONTROL OF  
PRODUCTION SYSTEMS**

**Paper : 834**

**Time : 3 hours**

**Max. Marks : 100**

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Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

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**Note :** Attempt any **five** questions. All questions carry equal marks.

1. (a) What is the aim of production system ?  
Explain in detail. (10)
- (b) What is the role of life cycle approach to  
production management ? (10)
2. (a) Explain the generalized model of  
production system. (10)

(b) Explain the process of new product development in detail. (10)

3. Explain the following :

(i) Use of decision tree (10)

(ii) Assembling line balancing concept (10)

4. (a) What is break-even analysis ? What is its importance ? (10)

(b) What is systematic layout planning ?  
What are its objectives ? (10)

5. What is forecasting ? What are its different types ? Explain the importance and objectives of forecasting. (20)

6. (a) What is MRP ? What are its different objectives ? (10)

(b) Explain the importance of standard error of estimate. (10)

7. (a) Define sequencing and scheduling. Give the criteria for sequencing. (10)

(b) Explain the n job 2 machine, n job 3 machine concept in detail. (10)

8. Write short notes on the following :

(i) Element of monitoring (10)

(ii) MRP model (10)