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# Question Paper Code: 21837

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

### Eighth Semester

### Mechanical Engineering

ME 2036/ME 802/10122 MEE 44 – PRODUCTION PLANNING AND CONTROL

(Common to Production Engineering and Mechanical and Automation Engineering)

(Regulations 2008/2010)

(Common to PTME 2036 – Production Planning and Control (Part-Time) Seventh Semester – B.E. Mech. Engineering)

(Regulations 2009)

Time: Three hours

Maximum: 100 marks

#### Answer ALL questions.

 $PART A - (10 \times 2 = 20 \text{ marks})$ 

- 1. What are the objectives of production planning?
- 2. What is break even analysis?
- 3. Bring out the meaning of the term therbligs.
- 4. List out the various techniques of work measurement.
- 5. Define the term process capability.
- 6. What are the objectives of value analysis?
- 7. Differentiate between sequencing and scheduling.
- 8. Cite the meaning of the term line of balance.
- 9. What is ABC analysis?
- 10. List out the various elements of JIT systems.

## PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) Discuss in detail with a neat schematic the various functions of production planning and control in an organization.

Or

- (b) Explain in detail the various aspects of product development and design.
- 12. (a) Discuss in detail the basic procedure in the development, analysis and implementation of work study and work measurement.

Or

- (b) Discuss in detail the basic procedure in the development, analysis and implementation of time study and work sampling.
- 13. (a) Explain in detail the various steps in product and process planning.

Or

- (b) Elaborate on the procedures involved in the determination of quantity, machine capacity and balancing in batch production.
- 14. (a) Discuss in detail the method of obtaining the master production schedule for a system with examples. Suitable assumptions can be made.

Or

- (b) Explain in detail the various components of MRP and their functions and objectives.
- 15. (a) Stating the assumptions in the EOQ model, derive systematically the expression for economic lot size providing explanations wherever appropriate.

Or

(b) Discuss in detail the fundamentals of MRP II and ERP.