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Question Paper Code : X 67620

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020
Eighth Semester
Mechanical Engineering
ME 1009 – PRODUCTION PLANNING AND CONTROL
(Regulations 2008)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Give the benefits of production planning and control.
2. Distinguish between standardization and specialization.
3. Compare cyclegraph and chrono cyclegraph.
4. Define PMTS.
5. What do you mean by routing ?
6. How do you arrive at optimum batch size ?
7. Illustrate Gantt chart with an example.
8. Define the techniques followed to align completion time with due date.
9. Define inventory control.
10. List the elements of Just In Time systems.

PART – B

(5×16=80 Marks)

11. a) Briefly explain the three basic types of production systems and discuss how production planning and control will vary for each of these production systems. (16)
- (OR)
- b) Give a detailed account of the various aspects to be considered during the design and development of a product. (16)



12. a) Define “Time study”. How do you organize time study for forging a ring of certain dimensions ? (Assume on your own dimensions).

(OR)

b) i) What do you mean by “motion economy principle” ? Where is it used ? (8)

ii) What is SIMO chart ? How you do construct it ? (8)

13. a) Describe the constituents of product planning process. (16)

(OR)

b) i) Give an account of the pre requisite information required towards process planning. (8)

ii) Discuss capacity planning with reference to balancing in a multi-product factory. (8)

14. a) Discuss with flow diagrams the following scheduling operations.

i) Master scheduling.

ii) Short term scheduling. (8+8)

(OR)

b) Describe the process of material requirement planning, dispatching, progress reporting and expediting under production scheduling.

15. a) i) Discuss the effect of demand on inventories. (6)

ii) Explain the ordering procedures followed in inventory operation. (10)

(OR)

b) i) Describe techniques used in determination of economic order quantity and lot size. (8)

ii) Discuss the role of computer in production planning and control. (8)
