Exam.Code:0944
Sub. Code: 7088

1058

B.E. (Mechanical Engineering)
Eighth Semester
MEC-804(g): Production and Operation Management

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

a) Distinguish between Production and Productivity

b) List the types of Production Systems.

c) Define Facility Location

d) What are the types of facility layout?

e) List Quantitative Forecasting models.

f) What do you understand by capacity planning?

g) Write the scope of inventory management.

h) List two wastes and methods to control it in an industry.

i) List the steps in New Product Development process.

j) What is ISO certification? (10x1)

UNIT – I

II. a) Explain the steps in process planning and value engineering.

b) What is a Product Lifecycle? State with reason whether the life cycle of a product can be extended. (5,5)

III. Explain in Detail the Plant Location, Layout & Planning process with diagrams? Identify the layout that might be adopted by the following:-

a) Holiday Resort

b) Daby Farm (10)

IV. a) Why is capacity planning important for a firm? Explain the factors affecting capacity planning.

b) Discuss the need and importance of new product design and development. Explain the steps involved in new product design and development with examples. (5,5)

P.T.O.

UNIT- II

V. Explain the following forecasting models:-

a) Multiple regression

b) Box Jenkins (10)

c) Delphi

VI. Explain Inventory Management Factors, Process & Control techniques -ABC,VED and EOQ analysis. (10)

VII. Define Quality? What are the prime determinants of quality? Mention various costs of quality? How does the definition of quality differ for a good or service? Discuss use of Control & Pareto chart for quality improvement with the help of an example. (10)

x-x-x