

Branch: MBA

Semester: 1st

Course Name: Production and Operations Management

Course Code: MB-616

Time: 02 Hours (Dec., 2020)

Maximum Marks: 50

Note: Attempt all questions

Q1. You have been appointed as Senior Operations Manager in “Wistron Corporation”, a Taiwan based electronic company, which employs more than 80,000 employees worldwide. Wistron focuses on ICT (information and communication technology) products, including notebook PCs, desktop PCs, servers, storage, LCD TVs, handheld devices, and devices and equipment for medical applications. The management of Wistron Corporation has decided to start its manufacturing facility in India and has asked you to present a detailed project report (DPR). Explain the key factors that you would consider while designing the proposal. Also explain the selection method you may choose while identifying/deciding a facility location.

(10 Marks)

Q2. Define Facility Layout. Also explain its types with the help of suitable example (preferably in pictorial representation).

(10 Marks)

Q3 (a). Formosa Plastics Corporation (hereinafter, FPC) was formed in 1958 to reflect vertical integration of the PVC manufacturing process but over the years, the FPC has diversified into many other fields, including textiles, electronics, medicine, skin care, automobile manufacturing, gasoline retail and petroleum refining. Its overseas expansion has focused primarily on the United States and mainland China. Its holdings include Texas properties containing over 200 oil wells and lands rich in natural gas, pipeline and production firms. In one of the petroleum refineries setup at Texas, the company refines 100 gallons of refined oil during one week of production. However, during 2018, it has recorded 200 gallons of refined oil during the same period. In such a case, calculate the refinery capacity utilization?

(05 Marks)

Q3 (b) A company is faced with seven tasks that have to be processed through two work centers. Assume both the centers work continuously and that they are using Johnson's rule. Data appear below (in hours). What would be the sequence of job as per Johnson's rule?

(05 Marks)

Task	Work center I	Work center II
A	2.58	3.47
B	1.66	5.84
C	2.71	2.41
D	5.52	1.99
E	3.38	7.62
F	5.22	1.73
G	2.89	1.11

Q4 What is Forecasting? Explain steps of Forecasting system with the help of suitable examples.

(10 Marks)

Q5. Write Short Notes on any **two**.

(2 X 5 Marks)

- a. Introduction to Supply Chain and Logistics Management
- b. The Centre of Gravity concept
- c. Concepts of Line Balancing (with the help of example)
- d. Difference between FOQ and EOQ model of inventory
- e. The concept of Aggregate Operation Planning and Master Production Scheduling