

Mid-West University  
**Examinations Management Office**  
 Birendranagar, Surkhet  
 End Semester (Alternative/Physical) Examination-2078  
 Master of Business Administration (MBA)  
 Semester - III

Subject: Production and Operation Management  
 Full Marks: 50 Pass Marks: 25

Course Code: MGT 532  
 Time: 3:00 Hours

*You are required to answer in your own words as far as applicable.*

**Attempt all of the following Questions:**

**5×10=50**

1. What is productivity? How can an organization enhance the productivity? Briefly explain the factors affecting productivity. [10]
2. Given the following:

Activity	Immediate predecessor	Duration in days
A	-	6
B	-	5
C	B	2
D	C	2
E	A ,D	2
F	D	1
G	A ,D	6
H	E	5
I	G ,H	6
J	I	2
K	G	4
L	J ,K	3
M	L	1

- a. Draw the CPM diagram [3]
  - b. Find out the critical activities [4]
  - c. Construct the slack table [3]
3. Marilyn Hart is the purchasing agent for Central Valve Company, which sells industrial valves and fluid-control devices. One of Central's most popular valves is the Western, which has an annual demand of 4,000 units. The cost of each value is \$90, and the inventory carrying cost is \$9. Marilyn has made a study of the costs involved in placing an order for any of the valves that Central Stocks and she has concluded that the average ordering cost is \$25 per order. Furthermore,

it takes about 5 working days for an order to arrive from the supplier. During this time, the demand per week for values is approximately 80. [2]

- a. What is the economic order quantity? [2]
- b. What is average inventory level? [2]
- c. What is the optimal number of orders per year? [2]
- d. What is the optimal number of days between any two orders, assuming 250 working days per year? [2]
- e. What is the total annual inventory cost (carrying cost + order cost)? [2]

**OR**

An electronic company has two courses of action for its promotional activities .It can give advertisement on a TV or in Radio but it can't undertake both of them simultaneously. It can choose to take TV first and then stop or if TV is successful then take Radio or vice versa. The probability of success on advertisement through TV is 60%, while through Radio is 40%. The advertisement on a TV and in radio requires an initial capital outlay of Rs. 18,000 and Rs. 11,000 respectively, and both returns are nothing if the advertisements are unsuccessful. The successful advertisement on a TV will return Rs. 25,000(over cost), while that of the radio will return Rs. 15,000(over cost).

- a. Draw the decision tree. [7]
  - b. What is the optimal decision? [3]
4. Briefly describe the dimensions of quality, for which a consumer looks in a product, and apply them to a specific product. [10]
  5. Describe the strategic significance of design. How can organizations gain a competitive edge with product or service design? [10]

**OR**

The Hunicut and Hallock Corporation makes two versions of the same basic file cabinet, the TOL (Top-of-the-line) five drawer file cabinet and the HQ (High-quality) five drawer filing cabinet. The TOL and HQ use the same cabinet frame and locking mechanism. The drawer assemblies are different although both use the same drawer frame assembly. The drawer assemblies for the TOL cabinet use a sliding assembly that requires *four* bearings per side whereas the HQ sliding assembly requires *only two* bearings per side. (These bearings are identical for both cabinet types.) 100 TOL and 300 HQ file cabinets need to be assembled in week #10. No current stock exists. Develop a material structure tree for the TOL and the HQ file cabinets. [10]

**The End**