PG Even Semester (CBCS) Exam., April—2019

BUSINESS ADMINISTRATION

(2nd Semester)

Course No. : MBACC–206

(Operations Management)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **all** the questions

1. A local fast food restaurant processes several customer orders at once. Service clerks cross paths, sometimes nearly colliding, while they trace different paths to fill customer orders. If customers order a special combination of toppings on their hamburgers, they must wait quite sometime while the special order is cooked. How would you modify the restaurant's operations to achieve competitive advantage? Because demand surges at lunchtime, volume flexibility is a competitive priority in the fast food business. How would you achieve volume flexibility? Share your views. 14

OR

2. *(a)* Why is the knowledge of process analysis essential to operations managers?

(b) Big Bob's Burger Barn would like to graphically depict the interaction among its lunch-ordering customers and its three employees. Customers come into the restaurant and eat there rather than drive through and eat in the car. Using the brief process description below, develop a service blueprint.

Fry Employee : receive customer order from counter employee, retrieve uncooked food, drop food into fry vat, wrap cooked food into special packaging, place wrapped items on service counter.

Grill Employee : receive customer order from counter employee, retrieve uncooked food, place food onto grill, build sandwich with requested condiments, deliver sandwich to counter employee.

Counter Employee : Take order from customer, transmit appropriate orders to fry and grill employee, transact payment, retrieve drinks, wrap sandwich, package order and deliver order to customer. 4+10=14

3. *(a)* The supply chain manager seeks a better way to forecast the demand for door hinges and believes that the demand is related to advertising expenditure. The following are sales and advertising data for the past 5 months :

Month	*Sales* (thousand of units)	*Advertising* (thousand of $)
1	264	2 5
2	116	1 3
3	165	1 4
4	101	1 0
5	209	2 0

The company will spend $ 1750, next month on advertising for the product. Use linear regression to develop an equation and a forecast for this product.

(b) Compute a three week moving average forecast for the arrival of medical clinic patients in week 4. The number of arrivals for the past 3 weeks were as follows :

Week	*Patient Arrival*
1	400
2	380
3	411

(i) If the actual number of patient arrivals in week 4 is 415, what is the forecast error for week 4?

(ii) What is the forecast for week 5?

8+2+2+2=14

4. How does Quality Function Deployment (QFD) help in developing a product or service? Discuss the detail steps involved in QFD. 8+6=14

OR

5. What are principles and practices of Total Quality Management (TQM)? How does kaizen help in improving product quality?

10+4=14

6. How do you differentiate between P-system and Q-system?

Yellow Press Inc. buys papers in 1500 pound rolls for printing. Annual demand is 2500 rolls. The cost per roll is $ 800, and the annual holding cost is 15% of the cost. Each order costs $ 50 to process.

(a) How many rolls should Yellow Press Inc. order at a time?

(b) What is the time between orders? 8+6=14

OR

7. Discuss the importance of Bills of Materials (BoM) in Inventory Planning. Describe in detail the Material Requirement Planning (MRP) for products. 8+6=14

8. How do Maintenance Management and Reliability Engineering are interelated? Discuss the important methods for improving the reliability of machines. 8+6=14

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