

PG Even Semester (CBCS) Exam., April—2018

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** questions

1. A manufacturer of garments is actively considering five alternative locations vary in terms of their advantages to the firm. Hence the firm requires a method of identifying the most appropriate location. Based on a survey of its senior executives the firm has arrived at six factors to be considered for final site selection. The ratings of each factor on a scale of 1 to 100 provide this information. Furthermore, based on the detailed analysis

of both the qualitative and quantitative data available for each of the location, the ratings of the location against each factor have also been arrived at (0 to 100).

Table—I

<i>Factors</i>	<i>Rating</i>
Availability of infrastructure	90
Size of market	60
Industrial relation climate	50
Tax benefits and concession	30
Availability of cheap labour	30
Nearness to port	65

Table—II

Rating of each location against each factor

<i>Factors</i>	<i>L1</i>	<i>L2</i>	<i>L3</i>	<i>L4</i>	<i>L5</i>
Availability of infrastructure	20	40	60	35	55
Size of the market	30	30	40	60	80
Industrial relation climate	80	30	50	60	50
Tax benefits and concession	80	20	10	20	20
Availability of cheap labour	70	70	45	50	50
Nearness to port	20	40	90	50	60

Using this information from Table—I and Table—II, obtain a ranking of the alternative locations. Why are facility locations important in business? Explain. 7+7=14

2. What is aggregate production plan? Mention different aggregate production techniques for handling customer requirements. 6+8=14

(3)

OR

3. (a) How does Gantt Chart help in monitoring production activities?
- (b) Use Johnson's rule to find out the optimum sequence for processing the jobs shown through two work centres. Time at each centre are as follows :

$$6+8=14$$

Job	Work centre-1	Work centre-2
A	6	12
B	3	7
C	18	9
D	15	14
E	16	8
F	10	15

4. What do you mean by Total Quality Management (TQM)? Discuss different dimensions of product quality. $6+8=14$

OR

5. Discuss, in brief, how Quality Function Deployment (QFD) is useful in designing products and services. 14
6. Zhou Petrochemicals Ltd., located in Navi Mumbai, is a wholesale manufacturer of automotive grease. The company distributes grease in barrels and cartons of various

(4)

capacities, ranging from 5 lb to 50 lb. It can deliver barrels within 3 days of an order being placed, but the lead time for carton is 1 month. Therefore efficient management of carton inventory is important for the company. Almost 95%–98% of the inventory at Zhou is meant for regular customers, who usually place orders for barrels on a weekly basis and cartons once every month. The remaining inventory is used to cater to unexpected orders from high-value customers. In the first quarter of every year, when demand peaks, Zhou reverses 5% of its inventory for high-value customers. During the rest of the year, it decreases its reserve inventory to almost 2%. Discuss—

- (a) how Zhou fine-tune inventory management to ensure optimum can use of space and cost;
- (b) which method of inventory control the company use for reordering and why.

$$8+6=14$$

7. What do you mean by reliability engineering? Discuss different techniques of increasing reliability of machines and equipments. $6+8=14$

OR

8. Write short notes on the following : $7 \times 2 = 14$
- (a) Project management
- (b) Maintenance management

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