2019

B.Com. (Hons.)

2nd Semester Examination

MARKETING MANAGEMENT

Paper—GE2T

Productions and Operations Management

Full Marks : 60　　　　　　　　　Time : 3 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

1. Answer any *ten* questions :　　　　　　10×2=20

    (a) What is Flexible Manufacturing System (FMS) ?

    (b) Define 'Capacity Planning'.

    (c) What is 'Computer Integrated Manufacturing System' (CIM) ?

    (d) State the major advantages of Batch Production Process.

    (e) What is Mass Production ?

[Turn Over]

(f) State the importance of Maintenance Mangement.

(g) What is forecasting ?

(h) Define Production Management.

(i) What is Forecasting Error ?

(j) What do you mean by Operation scheduling ?

(k) What is grass root method of forecasting ?

(l) Define Equipment Life cycle.

(m) What is layout planning ?

(n) Define Operational Strategy.

(o) What is Batch Production.

2. Answer any four of the following questions :

$$4 \times 5 = 20$$

(a) Distinguish between goods and services.

(b) Discuss the importance of Production Management.

(c) Outline the Merits and demerits of Preventive maintenance.

(d) Give a brief account of different types of wastage usually found in business operation.

(e) A workshop has 50 identical machines. The failure pattern of these machines has been observed as follows over a year.

Elapsed time after last Maintenance in months	1	2	3	4	5	6	7	8	9	10	11	12
Probability of failure	0.05	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.05

Find out Mean Time between failures (MTBT). If the yearly cost of servicing the failed (breakdown) machine is Rs. 7,000.00, what is the average cost of repairs per machine per occassion. 3+2

(f) The table shows the order in which five jobs arrived in the production department, their processing time and due dates.

[Turn Over]

Job	Processing time (Days)	Due date (Days)
A	17	45
B	12	35
C	22	27
D	18	54
E	26	47

From the above table, calculate :

(i) the average number of jobs in the system using the EDD rule and

(ii) the average tardiness using the FCFS rule.

3. Answer any *two* of the following questions :

$$2 \times 10 = 20$$

(a) Discuss the different factors influencing the location of a Manufacturing Plant.

(b) Discuss different Quantitative methods of Forecasting.

(c) What is the order of processing the jobs using Johnson's rule for the data given in the following table ?

Job	Processing Time (Days)	
	Machine I	Machine II
A	8	12
B	4	9
C	11	7
D	2	6
E	10	5

(d) Define forecasting considering it as basis of planning.

The sales of a particular brand of a product on being analysed give monthly sales figures for the previous year as furnished below :

Month	No. Sold (in '00)
1	8
2	5
3	9
4	11
5	13
6	13
7	10
8	11
9	14
10	15
11	16
12	18

[Turn Over]

(i)   Get a 3 month moving average for the various months of the year.

(ii) Get a 3 month weighted moving average with weights of current month : 0.5, Previous month : 0.3 and Previous to Previous month : 0.2   2+4+4

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