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Reg. No. :

Question Paper Code : 10144

M.B.A. DEGREE EXAMINATIONS, APRIL/MAY 2023.

Elective

BA 4023 – MATERIALS MANAGEMENT

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is basic manufacturing strategies and their associate delivery lead times?
2. Define Sales and Operations Planning (SOP).
3. What are the material requirement planning (MRP) process in brief?
4. Describe the key factors that affect available capacity of manufacturing company.
5. State various types of costs used for inventory management decisions.
6. Briefly explain how the inventory is evaluated by the accountants in brief.
7. What are the key factors considered while selecting a supplier?
8. List the four reasons causing demand patterns.
9. Brief the broad warehouse processing activities for efficient operations.
10. Explain the role of various intermediaries involved in a typical distribution channel for consumer goods.

PART B — (5 × 13 = 65 marks)

11. (a) Describe the Sales and Operations Planning process in detail.
Or
(b) Describe the Master Production Schedule in detail.

12. (a) Discuss the relationship between different levels of priority planning and capacity planning in detail.

Or

- (b) Discuss in detail some of the bottleneck principles and describe the ways by which bottlenecks can be managed.

13. (a) Discuss the ABC inventory control method in detail.

Or

- (b) Discuss in detail how the normal distribution is applied for determining safety stock for inventory management.

14. (a) Discuss in detail the various ways to describe functional specifications.

Or

- (b) Discuss in details the important intrinsic techniques for forecasting demand.

15. (a) Describe the factors that influence effective use of warehouses in detail.

Or

- (b) Describe various elements of transportation cost in detail and list the ways in which the total transportation could be reduced.

PART C — (1 × 15 = 15 marks)

16. (a) The labour cost of a medium scale Indian manufacturing company is given below for 12 periods.

Period Labour Cost (Rs. '000)

1	78
2	86
3	82
4	68
5	66
6	64
7	62
8	63
9	58
10	56
11	54
12	55

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- (i) Forecast next two periods labour cost using 3 – months moving average method.
- (ii) Forecast next two periods labour cost using simple exponential smoothing method, with a smoothing constant of 0.3.
- (iii) Based on your forecasts, which of the above two methods give better results?

Or

- (b) The forecasts from a model that you have been using and the actual demands that occurred for a type of motorcycles of an India motorcycle manufacturing company are:

Week	Forecast	Actual
1	850	950
2	900	1000
3	1000	850
4	950	900
5	900	850
6	950	1100
7	1000	1100
8	1050	950

Calculate forecasting errors using:

- (i) Mean Absolute Deviation (MAD)
- (ii) Mean Absolute Percent Error (MAPE)
- (iii) Tracking Signal (TS)

Based on calculated errors, evaluate whether your forecasting model is giving good results or not.