



**K. K. Wagh Institute of Engineering Education & Research, Nashik**  
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:II
Class:PG-I	Program:MBA
Branch Code:10	Pattern:2022
Name of Course:Operations Management	Course Code:MBA22204
Max. Marks:60	Duration:2.30 Hrs.

**Instructions:** Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.
6. Choose (a) or (b) and (c) or (d) from Q3,Q4 & Q5

**Marks CO**

**Question No. 1**

- 1a) The actual demand data of two-wheelers from May'20-Jul-20 will be considered which is 100, 150, (6) CO1 and 200 respectively. Calculate the Forecast of August'20, by using Weighted Moving Average Method. We have assigned weights 0.12, to May'20, 0.38, to Jun'20, 0.50, to Jul'20. Draw a table showing the same

**Question No. 2**

- 2a) Define Innovation. Explain the Benefits of Product and Service Innovation. (6) CO2

**Question No. 3**

- 3a) The following details are available regarding the list of activities in the publication of a book. (8) CO3

Activity	Predecessor	Time
A	-	9
B	-	2
C	A,B	2
D	A	7
E	C,D	5
F	E	4
G	E	2
H	C,D	5
I	F,G	6
J	I,H	1

Find the critical path, and the earliest time when the book will be ready for distribution.

**OR**

- 3b) The following details are available regarding the list of activities in the publication of a book. (8) CO3

Activity	Predecessor	Time
A	-	3
B	-	3
C	A,B	10
D	A,B	7
E	A,B	5
F	E	3
G	D,F	5
H	D,F	8
I	C,G,H	2
J	I	4

Find the critical path, and the earliest time when the book will be ready for distribution.

- 3c) Define MRP. Write the Inputs and Outputs of MRP. Write a Short note on MRP II (8) CO3

**OR**

- 3d) Write a short note on Master Production Schedule. Elaborate the stages of Production Scheduling. (8) CO3

**Question No. 4**

- 4a) The John Equipment Company estimates its carrying cost at 15% and its ordering cost at Rs.9 per order. The estimated annual requirement is 48,000 units at a price of Rs.4 per unit. What is the most economical number of units to order? How many orders should be placed in a year? How often should an order be placed. (8) CO4

**OR**

- 4b) ABC Ltd. uses EOQ logic to determine the order quantity for its various components and is planning its orders. The Annual consumption is 80,000 units, Cost to place one order is Rs. 1,200, Cost per unit is Rs. 50 and carrying cost is 6% of Unit cost. Find EOQ, No. of order per year. (8) CO4

- 4c) Explain any 3 principles of TQM. Explain the 5S Lean method for workstation optimization. (8) CO4

**OR**

- 4d) Elaborate in detail "DMAIC" method of Six Sigma with suitable diagrams. (8) CO4

**Question No. 5**

- 5a) Define & explain the concept of Supply Chain Management. Elaborate generalized supply chain model. (8) CO5

**OR**

- 5b) Explain the Bullwhip effect, and its Causes with examples and diagram. (8) CO5

- 5c) Discuss any 3 Inventory Control Methods with neat diagrams. (8) CO5

**OR**

- 5d) Explain how Globalisation and Fast Changing Markets affect Supply Chain Management. (8) CO5

..... End of question paper.....