

JK Lakshmipat University Jaipur
INSTITUTE OF MANAGEMENT
End Term Examination, December 2025
BBA, Semester III, 2024-27

Roll No.....

OP1101: Operations Management

Time: 2.5 hours

Max. Marks: 30

Instructions to students:

1. Do not write anything other than your roll number on question paper.
 2. Mention all the assumptions for your answers clearly.
 3. Use of any type of calculator is permitted.
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Q. 1 The following activities are part of a project

6.0
(CO2, 4)

Activity	Immediate Predecessor	Time (Weeks)
A	---	6
B	A	3
C	A	7
D	C	2
E	B,D	4
F	D	3
G	E,F	7

- a. Draw the network diagram
 - b. Trace the Critical Path
 - c. Calculate the time taken to complete the project
 - d. How much slack does activity B have?
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Q. 2.1 Items purchased from a vendor cost \$20 each, and the forecast for next year's demand is 1,000 units. If it costs \$5 every time an order is placed for more units, and the storage cost is \$4 per unit per year, answer the following questions.

3.0
(CO1,2)

- a. What quantity should be ordered each time?
- b. What is the total ordering cost for a year?
- c. What is the total storage cost for a year?

Q. 2.2 DAT, Inc., produces digital audiotapes to be used in the consumer audio division. DAT lacks sufficient personnel in its inventory supply section to closely control each item stocked, so it has asked you to determine an ABC classification. Here is a sample from the inventory records: (next page)

3.0
(CO2,4)

Item	Average Monthly Demand	Price per Unit
1	700	\$6.00
2	200	\$4.00
3	2,000	\$12.00
4	1,100	\$20.00
5	4,000	\$21.00
6	100	\$10.00
7	3,000	\$2.00
8	2,500	\$1.00
9	500	\$10.00
10	1,000	\$2.00

Develop an ABC classification for above items ?

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- Q. 3.1 How does obsolescence contribute to the cost of carrying inventory? How can this cost be reduced? 2.0 (CO3)
- Q. 3.2 What two basic questions must be answered by an inventory-control decision rule? 2.0 (CO3)
- Q. 3.3 What is the purpose of classifying items into groups, as the ABC classification does? 2.0 (CO3)
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Q. 4	Machine	Job Number						6.0 (LO1, 2)
		A	B	C	D	E	F	
	No. of Units	3	4	2	5	2	3	
	M1	6	17	7	4	10	7	
	M2	9	8	12	6	9	15	

Develop a scheduling chart for above machines with n jobs and calculate the total time and idle time on machines

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- Q. 5.1 Write short note on any two of the following: 4.0 (CO1)
- Andon
 - Poka Yoke
 - Just In Time
 - SMED
- Q. 5.2 Describe different methods of buying employed by purchase department of a company. 2.0 (CO1, 3)
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all the best!