GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, ODISHA, GUNUPUR (GIET UNIVERSITY)

B. B. A (Fourth Semester) Examinations, April 2025

23BBAPC24005 – Production and Operation Management

Time: 3 hrs   Maximum: 60 Marks

(The figures in the right hand margin indicate marks.)

PART – A   (2 x 10 = 20 Marks)

Q.1. Answer *ALL* questions

		CO #	Blooms Level
a.	What is production system?	CO1	K1
b.	What is functional subsystem of an organisation?	CO1	K1
c.	Write down 3 objectives of production and operation management.	CO2	K1
d.	What is PPC?	CO2	K1
e.	Write the different types of scheduling techniques.	CO3	K1
f.	Describe Material control.	CO3	K1
g.	Describe Aggregate Planning	CO4	K1
h.	Differentiate between Manufacturing and Service Operations with 2 examples.	CO4	K2
i.	Describe Weighted Factor Rating Method.	CO5	K2
j.	Define Materials and Inventory.	CO5	K2

PART – B   (8 x 5 = 40 Marks)

Answer *All* the questions

		Marks	CO #	Blooms Level
2. a.	A biscuit manufacturing company buy a lot of 10,000 bags of wheat per annum the cost per bag is Rs 500/- and the ordering cost is Rs 400/. The inventory cost is estimated as 10% of price of the wheat. Determine EOQ	8	CO3	K2

OR

		Marks	CO #	Blooms Level
b.	Discuss five major factors affecting plant location with real-world examples from different industries.	8	CO4	K2
3.a.	**Centre of Gravity Method – Problem**	8	CO4	K2

XYZ Logistics needs to establish a central warehouse to minimize transportation costs. The company supplies products to four retail stores located at the following coordinates, along with their respective demand (in units per month):

Store	X-Coordinate	Y-Coordinate	Demand (Units)
A	10	20	500
B	30	40	700
C	50	30	900
D	20	50	600

OR

b.	A manufacturing company used Rs. 90,000 materials per year. The administration cost per purchase is Rs. 80 and carrying cost is 27% of the average inventory. The company currently has an optimum purchasing policy but has been offered a 0.45% quantity discount if they purchase five times per year. Should the offer be accepted? If not, what counter offer should be made?	8	CO2	K3
4.a.	Explain the various techniques of inventory control.	8	CO3	K2
	OR			
b.	Write down on production function points.	8	CO1	K1
5.a.	Difference between production management and operation management.	8	CO2	K2
	OR			
b.	Explain Matrix of Functions of system and management activities.	8	CO1	K1
6.a.	Describe the role of production operation manager.	8	CO1	K1
	OR			
b.	A company produces an output worth ₹500,000 using various inputs, including labour cost of ₹100,000, material cost of ₹150,000, capital cost of ₹200,000, and energy cost of ₹50,000. The total labour hours used in production are 500, and the company produces 2,000 units. Based on this information, calculate the Total Productivity of the company and determine the Labour Productivity in terms of units produced per labour hour.	8	CO3	K3

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