QP Code: RM23MBA029 Reg. No | | | | | | | | | | | AY 23

GIET UNIVERSITY, GUNUPUR – 765022

M. B. A (Second Semester) Examinations, May – 2024

23MBAPC12007 – Operations Management

Time: 3 hrs Maximum: 60 Marks

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

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Outline the features of Continuous production.	CO1	K1
b. State the importance of facility location.	CO2	K2
c. Write the common errors in network diagramming.	CO3	K2
d. What is stock out cost in inventory?	CO4	K1
e. What is Quality control?	CO5	K1

PART – B **(10 x 5 = 50 Marks)**

Answer ***All*** the questions	Marks	CO #	Blooms Level
2. a. What is forecasting? Bring out the various techniques used in demand forecasting.	10	CO1	K1, K2
(OR)			
b. Define production system. Name the various subsystems used in 'Production System' and elaborate them.	10	CO1	K2
3.a. What do you mean by facility location? Explain the various methods to evaluate the location decision methods.	10	CO2	K1, K2
(OR)			
b. Define the term 'aggregate plan. State the various strategies used in aggregate planning.	10	CO2	K1, K2
4.a. Draw PERT network diagram for the data given below and (i) Compute the expected time for each activity. (ii) Find the expected duration of the project. (iii)Compute the standard deviation of the critical path. (iv)Compute the probability of completing the project in 35 weeks or less.	10	CO3, CO6	K3

Activity	**Immediate Preceding activity**	**Estimated duration (Weeks)**		
		Optimistic	***Most likely***	***Pessimistic***
A	-	4	7	13
B	A	6	9	11
C	A	5	7	9
D	B	3	5	7
E	C	7	8	10
F	D	2	3	5
G	E	6	7	8
H	F,G	2	3	4

(OR)

b. A publisher proposes to publish five different books, the manuscripts of which have already been submitted to him for publication. He wants to bring all the books out in the market in as short a period as can be allowed. Each book has to be processed through the following (in the order): 1.Composing, 2. Printing, and 3. Binding before these can be brought out in the market. The time taken by each of the above process is known to the publisher and is as follows: 10 CO3, CO6 K4

Book	*1*	*2*	*3*	*4*	*5*
Composing	40	90	80	60	50
Printing	50	60	20	30	40
Binding	80	100	60	70	110

Determine the optimal sequence and cycle time of giving the manuscript to the press.

5.a. From the following data, classify A, B & C class items. 10 CO4, CO6 KL4

Items	*Unit Price (Rs)*	*Annual consumption (units)*
1	200	3000
2	2	60000
3	5000	20
4	12.5	200
5	9	35
6	25	6000
7	1000	400
8	70	200
9	10	1000
10	5	9000
11	30	101
12	1000	1

(OR)

b. The XYZ manufacturing company has determined from an analysis of its accounting and production data for part number 625, that its cost to purchase is Rs 2 per unit and ordering cost per order is Rs 36. Its inventory carrying charge is 9% of the average inventory. The demand of this part is 10,000 units per annum. Determine EOQ and optimum number of orders. Also find the break-even discount percentage that matches EOQ ordering. 10 CO4, CO6 K3

6.a. Write a note on the following: 10 CO5 K2

(i) TQM

(ii) SQC

(OR)

b. How does a typical control chart look like? Discuss the different types of control charts. 10 CO5 K1, K2

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