2021
Bachelor of Commerce
Fifth Semester
BCM-504: Production and Operation Management

Time allowed: 3 Hours   Max. Marks: 80

NOTE: Attempt four short answer type questions from Section–A. Attempt two questions each from Section B and C respectively.

x-x-x

Section – A

I.   Attempt any four of the following:-

a)

Jobs	Processing Time				
	1	2	3	4	5
A – Machine	5	1	9	3	10
B – Machine	2	6	7	8	4

Determine a sequence for the five jobs that will minimize the elapsed time.

b) Explain ABC Analysis of material management.

c) What is work study?

d) Differentiate between Motion Study and Work Measurement.

e) Define the term 'Crashing' with reference to Network analysis.

f) A company uses 3000 unit of a product, its carrying cost is 30% of average inventory. Ordering cost is Rs. 100 per order. Unit cost is Rs. 20. Calculate EOQ and Total Cost.   (4x5)

Section – B

II.   Differentiate between PERT and CPM.   (15)

III.   Find critical path and all floats from the following project schedule:-

Activity	Time weeks	Activity	Time weeks
1 – 2	4	5 – 6	4
1 – 3	1	5 – 7	8
2 – 4	1	6 – 8	1
3 – 4	1	7 – 8	2
3 – 5	6	8 – 10	5
4 – 9	5	9 – 10	7

(15)
P.T.O.

IV. Briefly explain the objectives of production and operations management. (15)

V. What is product development? Discuss the product design and development techniques. (15)

Section – C

VI. Write a detailed note on elements or components of logistics management. (15)

VII. A company uses a special bracket in the manufacture of its product which it orders from outside suppliers. The appropriate data are:

Demand (D) = 2000 items per annum

Ordering cost (C_o) = Rs. 20 per order

Carrying cost (C_c) = 20% of item price

Basic item price = Rs. 10 per bracket

The company is offered the following discounts on the basic price:

Rs. 9.80 for order quantities : 400 - 799 (2 % disc.)

Rs. 9.60 for order quantities : 800 - 1599 (4%)

Rs. 9.50 for order quantities : 1600 and over (5%)

It is required to establish the most economical quantity to order (15)

VIII. Explain in detail the concept of centralized Vs. decentralized purchasing. (15)

IX. Write short notes on:-

a) EOQ

b) Lead time

c) JIT inventory (3x5)

x-x-x