PG (Even) Semester Examination, 2023

BUSINESS ADMINISTRATION

(2nd Semester)

Course No.: CP-205

(Production & Operation Management)

Full Marks: 70

Pass Marks: 28

Time: 3 hours

The figures in the right margin indicate full marks for the question.

1. 'ABC' Department stores, a chain of four large target-type outlets, has store location in Chicago, Pittsburgh, Ney York and Atlanta : they are currently being supplied out of an old and inadequate warehouse at Pittsburgh. The firm wants to find 'central' location in which to build a new warehouse. 'ABC' wants to apply centre of Gravity method and it gathers data on demand rates at each outlays. Find the best location for warehouse using the centre of Gravity method and give your comments. The data are as follows:

Store location	No. of containers Shipped per month
Chicago	2000
Pittsburgh	1000
New York	1000
Atlanta	2000

Also the coordinates for there location are :

Chicago (30, 12)

Pittsburgh (90, 110)

New York (130, 130)

Atlanta (60, 40) 14

2. 'Airbus' wants to develop a precedence diagram for an electrostatis wing component that requires a total asembly time of 65 minutes. The precedent data are as follows :

Task	Assembly fine (mins)	Predessor
A	10	—
B	11	A
C	5	B
D	4	B
E	11	A
F	3	C,D
G	7	F
H	11	E
I	3	G,H

On the basis of activity time, 'Airbus' determines that there are 480 productive minutes of work available per day. Furthermore, the production schedule requires that 40 units of the wing components be completed as output from the assembly line each day. It now wants to group the task into workstation.

Discuss the assembly line balancing of the problem with cycle line, minimum no. of workstation needed. 14

3. 'Z store' follows the replenishment cycle for ordering its products. This its annual demand is 40,000 units with ordering cost per order Rs. 10 and carring cost per unit per year is Rs. 3. Find the Economic Order Quantity in situation. Also mention the benefits of Quantity Discounts in EOQ models. 10+4=14

Or

4. What are the major inputs and outputs in MRP system? How does Bills of Materials are useful in inventory planning. 10+4=14

5. How does level strategy differ from chase strategy? Discuss with example. 14

Or

6. How does KAIZEN ensure better quality? Discuss the process of P-D-C-A. 10+4=14

7. What are the advantages of JIT system? Discuss the brief the leave system. 10+4=14

Or

8. Write short notes on : 7x2=14

(i) Deep learning

(ii) Machine learning

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