**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

PGDM SECOND TRIMESTER (Batch 2022-24)

END TERM IMPROVEMENT EXAMINATION, MARCH 2023

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| Course Name | **Operations Management** | Course Code | **OM 40502** |
| Max. Time | **2 hours** | Max. Marks | **40** |

**INSTRUCTIONS:** *Attempt all questions.*

Q.1Examine the Operations Management concept of “Service Blue Printing” for Retail sector with an example of a retail store of your choice. **(CLO1)**  **(7 Marks)**

Q.2 Sundaram Electronics Limited (SEL) is an electronic circuit board manufacturing company. The company has recently developed circuit boards for some electronic toys. Mr. Ashok Iyer is the Chief Operating Officer for SEL. He is exploring multiple production options. He can get these board made manually which will cost him Rs. 200 per board and with initial setup cost of Rs. 3 Million. He can opt for a semi-automatic process which will reduce cost to Rs. 100 per pieces, but the company will require an initial capital investment of Rs. 8 million. A fully automatic unit will reduce the cost to Rs. 50 per unit but will require an initial investment of Rs. 15 million as set up cost. Apply Operations Management concepts and suggest best course of action to Mr. Ashok Iyer. **(CLO2)** **(8 Marks)**

Q.3Apply the following Operations Management concepts with a business illustration and example from the industry indicated in question.

a. Seven QC tools for a Fashion Boutique

b. Kaizen and 5 “S” concept for a Five-star hotel

**(CLO1) (4 + 4 Marks)**

Q4. Ms. Nandini Joshi is DGM Procurement with a chain of hospitals in NCR. Her chain requires 12 million liters of antiseptic solution every year. The ordering cost is Rs. 600 per order and carrying cost is 25 % of unit price per year. Each liter of antiseptic costs Rs. 100/-. The supplier has offered following discounts on bulk purchases: -

**Quantity Liters per order Price (Rs.) per liter**

0 – 24,999 100

25,000 – 49,999 95

50,000 – 99,999 90

1,00,000 and Above 88

Design the optimum inventory policy for Ms. Nandini Joshi. **(CLO3)** **(10 Marks)**

Q5. “Fast Read Limited” is a bar code scanner manufacturing company. Mr. Karan Ahuja the Operations manager wanted to improve the activities in his assembly line section. So, he studied the following process steps: -

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Task Description** | **Immediate Precedence** | **Time (Seconds)** |
| A | Issue the kit from stores | - | 95 |
| B | Carry out inspection of the kit | A | 140 |
| C | Process Controller board Unit insertion | A | 100 |
| D | Solder controller board | C | 150 |
| E | Trim the controller board | D | 120 |
| F | Assemble power unit to chassis | B | 85 |
| G | Assemble reader unit to chassis | F | 50 |
| H | Assemble controller board to chassis | E, G | 160 |
| I | Assemble display unit to chassis | H | 80 |
| J | Inspect the final assembly | I | 160 |
| K | Do Packaging of final unit | J | 50 |

As different skills are required for these activities, Mr. Ahuja carried out grouping of activities as per skill sets as under: -

|  |  |
| --- | --- |
| Compatibility Group | Activities |
| I | A, B |
| II | C |
| III | D |
| IV | E |
| V | F, G, H, I, J, K |

Mr. Ahuja has a target to produce 100 unite per shift. Each shift operates for 8 hours with one lunch break of 30 minutes and two tea breaks each of 10 minutes. Apply Operations Management concepts and suggest the best possible practice for Mr. Karan Ahuja. **(CLO2)** **(7 Marks)**