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| **C:\Users\ADMIN\Desktop\j.png** | **JAIPURIA INSTITUE OF MANAGEMENT, INDORE**  Post Graduate Diploma in Management |
| **Course Title: Operations Management, (Course Code: OM 40502)**  **Special Improvement Examination, Term - II (Batch 2022-24) (March, 2023)** | |
| **Time Duration : 2 Hours Total Marks: 40** | |

**INSTRUCTIONS:** *Attempt all questions. Statistical tables and graph papers shall be provided on request.*

Q.1Examine the Operations Management concept of “Input - Transformation Process – Output” with a business illustration and example from Banking Sector. **(5 Marks)**

Q.2Bharat Fashion House Limited is a manufacturer of Ladies Fashion garments. The fashion house has many departments and each department requires some area for carrying out activities. The area requirements and inter-department proximity requirements are presented below. The total area available is 30 x 20 meters (M). Develop an optimum layout for Bharat Fashion House Limited. **(10 Marks)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Department | Area Required  (M2) | Store | Designing | Cutting | Sewing | Finishing | Packing |
| Store | 160 | - |  |  |  |  |  |
| Designing | 100 | I | - |  |  |  |  |
| Cutting | 60 | A | A | - |  |  |  |
| Sewing | 140 | O | I | A | - |  |  |
| Finishing | 40 | I | I | O | A | - |  |
| Packing | 60 | U | U | O | U | E | - |
| Display | 40 | U | U | U | U | I | E |

Q.3Steve’s Kitchen is a famous restaurant in Indore. The restaurant is specialized in many dishes but the most famous dish is Veg Curry. The curry preparation has multiple steps like; cleaning of vegetables, chopping of vegetables, preparation of vegetables cutlets (including deep frying in Oil), preparation of dry spices mix, preparation of Onion – Ginger – Garlic – Green chili paste, frying all ingredients, adding vegetable cutlets and finishing the curry etc.

One day, Steve observed that the curry prepared by his chef is not up to the mark and the taste is not good. Apply relevant QC tool to this situation and suggest further course of action, so that similar incidence do not happen in the future.  **(10 Marks)**

Q4. “Super Juices Limited” is a manufacturer of different type of Juices. In the past the company was small and so a Manual process was used for juice extraction, mixing, packing and finishing etc. However, with increase in sales, the need for modernization arose. Presently with manual process, the fixed cost is Rs. 5,000,000 and variable cost is Rs. 40 per liter of juice. A semiautomatic process, if installed will cost Rs. 15,000,000 but will reduce the variable cost to Rs. 20 per liter. A fully automatic process will require an investment of Rs. 25,000,000 and it will bring down the variable cost to Rs. 10 per liter. As an Operations management expert, apply Operations Management concepts and suggest the best course of action to “Super Juices Limited”. **(5 Marks)**

Q5. Ms. Ishita Ambani is the owner of Exotic Super Market in Mumbai. The market has multiple exotic grains with details as under: -

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Annual Sale (Rs)** |  | **Item** | **Annual Sale (Rs)** |
| Brown Rice | 100,000 |  | Samba Rice | 20,000 |
| Basmati Rice | 100,000,000 |  | Rosematta Rice | 35,000 |
| Jasmine Rice | 400,000 |  | Whole Black Urad Dal | 250,000 |
| Mogra Rice | 300,000 |  | Split Black Urad Dal | 50,000 |
| Bamboo Rice | 150,000 |  | Split Chana Dal | 850,000 |
| Wild Rice | 80,000 |  | Rajma | 100,000 |
| Black Rice | 95,000 |  | Black Eyed Peas | 10,000 |
| Red Rice | 120,000 |  | Moth Beans | 250,000 |
| Red Cargo Rice | 30,000 |  | Whole White Urad Dal | 150,000 |
| Indrayani Rice | 50,000 |  | Split White Urad Dal | 250,000 |
| White Rice | 40,000 |  | Black Chickpeas | 250,000 |
| Sushi Rice | 25,000 |  | White Chickpeas | 350,000 |
| Purple Thai Rice | 45,000 |  | Toor Dal | 15,000,000 |
| Bomba Rice | 22,000 |  | Split Yellow Moong Dal | 8,000,000 |
| Sticky Rice | 80,000 |  | Whole Masoor Dal | 259,000 |
| Arborio Rice | 18,000 |  | Split Orange Masoor Dal | 395,000 |
| Sona Masuri | 45,000 |  | Whole Green Moong Dal | 6,500,000 |
| Valencia Rice | 26,000 |  | Split Green Moong Dal | 12,103,000 |

Design an optimum inventory policy for the year 2024 for Ms. Ishita Ambani, by using an appropriate selective inventory control technique. **(10 Marks)**