



**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**  
**PGDM / PGDM (M) / PGDM (SM)**  
**III TRIMESTER (Batch 2021-23)**  
**END TERM EXAMINATION, APRIL 2023**  
**SET - 1**

Course Name	Supply Chain Analytics (SCA)	Course Code	<b>20837</b>
Max. Time	<b>2 hours</b>	Max. Marks	<b>40 MM</b>

**INSTRUCTIONS:**

- a. All questions are compulsory to attempt.
- b. Do Question1 on R studio.
- c. Do Question 2 and 3 using MS-Excel.
- d. The datasets for Question 1 and 3 are available on Moodle.
- e. Upload three separate files on Moodle for the three questions.
- f. Students may refer to the R codes available on Moodle for solving Question 1

**Question 1:**

The file Giftsales.xls contains monthly sales for a gift shop at a beach resort town in Goa, between 2016-2022. Back in 2022, the store wanted to use the data to forecast sales for the next 12 months (year 2023). They hired you as an analyst to generate sales forecasts. Use R programming to analyze the data.

- a. Explore and forecast the sales of Gifts using appropriate forecasting technique. **(10 marks)**

**Question 2:**

Ms. Anjali has visited few hotels in Delhi to decide where to hold an international conference for Corporate Leaders. Based on the Ambience she has to take a decision regarding the three hotels, ITC Maurya, Taj Palace and The Leela Palace. The pairwise comparison matrix is given in Table 2.1. **(10 Marks)**

**Table 2.1: Pairwise comparison matrix**

	<b>Ambience</b>		
Hotel	ITC Maurya	Taj Palace	The Leela Palace
ITC Maurya	1		
Taj Palace	2	1	
The Leela Palace	5	3	1

**Apply your knowledge of AHP and do the following task using Excel:**

- a) Complete the matrix by filling the elements in the upper diagonal.
- b) Solve the above matrix and assign rankings to the three hotels.

**Question 3:**

The Sales data of a chain of stores is given in file “sales.xls”. Create an Excel dashboard and analyze the total sales based on the different attributes given in the dataset. Present the managerial report of the findings from the dashboard. **(20 Marks)**

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