BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MBA **SEMESTER : III**
BRANCH: Management **SESSION : MO/2025**

SUBJECT: MT552 MARKETING ANALYTICS

TIME: 3 Hours **FULL MARKS: 50**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	How can **SORT** and **FILTER** functions help summarize large customer datasets?	[5]	1	2
Q.1(b)	What is the purpose of the **MAX** and **MIN** functions when analyzing sales data?	[5]	1	2
Q.2(a)	Given the demand function: Q=120−3P (Where Q- Quantity demanded ; P- Price) If the market price increases from ₹20 to ₹25, calculate: Initial quantity demanded; New quantity demanded; Change in quantity demanded	[5]	2	4
Q.2(b)	What is price bundling? Discuss its advantages	**[5]**	2	2
Q.3(a)	The data below show **X (Hours studied)** and **Y (Marks scored)** for 6 students: Compute the **Pearson correlation coefficient (r)** between X and Y.	[5]	3	4
Q.3(b)	A store recorded weekly demand (units) for 6 weeks as follows: Periods 1–6 actual demand: 200, 210, 190, 220, 205, 215 Using **simple exponential smoothing** with smoothing constant $\alpha = 0.30$ and **initial forecast for period 2 taken as** $F_2 = A_1$, do the following: Compute the forecasts F_2through F_7(so $F_7$is the forecast for the next period).	[5]	3	4
Q.4(a)	What is conjoint analysis? Discuss its importance in marketing analytics	[5]	4	4
Q.4(b)	Discuss the concept of customer value analysis with examples	[5]	4	3
Q.5(a)	Explain the concept of retail analytics. Discuss the tools for analyzing retail data	[5]	5	2
Q.5(b)	What key metrics are used in advertising analytics? Explain	[5]	5	3

Student	X (Hours)	Y (Marks)
1	1	2
2	2	4
3	3	5
4	4	4
5	5	5
6	6	7

:::::27/11/2025:::::M