

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2025)

CLASS: ISc
BRANCH: CQEDS

SEMESTER : II
SESSION : SP/2025

SUBJECT: ED24115 INTRODUCTORY MICROECONOMICS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

		CO	BL
Q.1	Prince has preferences only for sweaters and maggi in winter. A labour union strike in maggi-making factory, generates a large increase in its price. Set up the problem (with equations, diagram) and show the effect of the price rise on his budget constraint and optimal consumption bundle assuming he treats Maggi as a normal good.	1	
		[5]	
Q.2	How would your response change if Prince treats Maggi as a Giffen good.	[5]	1
Q.3	Explain why MRS between two goods must equal the ratio of the price of the goods for the consumer to achieve maximum satisfaction. What is this principle called?	[4+1]	1
Q.4	The production function for Birla Soft is given by $q = 10K^{0.5}L^{0.5}$ where q is the number of microchips produced per day, K is hours of machine time, and L is hours of labor input. HCL Tech, its competitor, is using the production function $q = 10K^{0.6}L^{0.4}$. a. If both companies use the same amounts of capital and labor, which will generate more output? b. Assume that capital is limited to 50 machine hours, but labor is unlimited in supply. In which company is the marginal product of labor greater? Explain.	[2.5+2.5]	2
Q.5	How would you obtain the Cobb Douglas production function from the CES production function? What value does elasticity of substitution take?	[4+1]	2

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