

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2023)

CLASS: IMSc
BRANCH: QEDS

SEMESTER : II
SESSION : SP 2023

SUBJECT: ED115 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
 5. Sequence of the questions must be maintained to avoid penalty
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		CO	BL
Q.1(a)	What are the different types of preference relations and how are they denoted?	[2]	1
Q.1(b)	What are the assumptions about preference relations? Represent them using mathematical notations.	[3]	1
Q.2(a)	Derive the relation between MRS and MU for two goods mathematically using total differential method.	[2]	1
Q.2(b)	Decompose the price effect of an inferior good using Slutsky equation. Comment how it is different from the price effect of Giffen goods.	[3]	1
Q.3(a)	David consumes 3 tea spoons of sugar with each cup of tea. The price of tea spoon of sugar and tea are \$2 and \$5 respectively. David has a monthly income of \$15000. Find his optimum consumption of each good. Comment of the nature of the two goods.	[2]	1
Q.3(b)	Find the elasticity of substitution for Cobb-Douglas production function.	[3]	2
Q.4(a)	What is the difference between short run and long run production function?	[2]	2
Q.4(b)	Derive the AP and MP curves for the variable factor from the TP curve.	[3]	2
Q.5(a)	Represent IRS, CRS and DRS in a suitable diagram.	[2]	2
Q.5(b)	Show that the returns to scale depends on the sum of the exponents in a Cobb-Douglas production function.	[3]	2

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