

# VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (VSSUT), ODISHA

Even Mid Semester Examination for Academic Session 2024-25

COURSE NAME: BTech

SEMESTER: 4th

BRANCH NAME: CE, CM, ME, MME, PE

SUBJECT NAME: Engineering Economics

FULL MARKS: 30

TIME: 90 Minutes

Answer All Questions.

The figures in the right hand margin indicate Marks. Symbols carry usual meaning.

- Q1. Answer all Questions. [2 × 3]
- a) What is the difference between a change in demand and a change in quantity demanded? - CO1
  - b) If  $GDP_{MP}$  of an economy is ₹12,000 crores where the Indirect taxes collected amount is ₹1,500 crores and subsidies provided are ₹500 crores. Calculate  $GDP_{FC}$  - CO2
  - c) Define cross elasticity of demand. What does a positive cross elasticity coefficient signify? - CO3
- Q2. [8]
- a) Compare and contrast the Law of Diminishing Marginal Utility and the Equi-Marginal Utility Principle. How are they interconnected? - CO1
- OR
- b) Define National Income Accounting and discuss its significance in macroeconomic analysis. Explain the three primary methods used to measure national income, along with the precautions to be taken during their measurement. - CO1
- Q3. [8]
- a) Explain the conditions for consumer equilibrium using the indifference curve approach. Additionally, analyze how a change in the consumer's income influences their equilibrium. - CO2
- OR
- b) Discuss the role of expected utility in consumer decision-making under risk. How does it assist in classifying consumers based on their risk attitudes? Explain the concept of risk aversion using the concavity of the utility function, and compare it with risk neutrality and risk-loving behavior. - CO2
- Q4. [8]
- a) Explain the Revealed Preference Theory and how it differs from the Utility Theory in consumer behavior analysis. - CO3
- OR
- b) What is the Neumann-Morgenstern Utility Index under risky conditions? How is it constructed? - CO3