Year &	Course	Course Name: Estimation	No. of	L	T&PS	P
Sem	Code:	& Costing	Credits: 4	2	2	0
	CE3501					

### **UNIT I: Introduction and Building Estimation**

Procedure of Estimation: - Objectives -Process components - Basic Principles of measurement - Units of measurements.

Method of Building Estimation: Quantification of various items of construction – Method of building estimates -Illustrative examples

### **UNIT II: Estimation of RCC Structures**

RCC Works and structures-, Estimate of RCC framed buildings, Retaining walls.

Principles of rate analysis - Standard data and schedule of rates approximate estimates, valuation.

# **UNIT III: Estimation of Roads and CD Works**

Road Estimation - Earthwork Methods, Metalled Road, CC Track way, BT Roads, Culverts and Bridges

# **UNIT IV: Sanctioning of Estimates - Works**

Estimation of Irrigation works. Types of Estimation – Sanction – Project

# **UNIT V: Rate Analysis**

Analysis of Rates for different building works. Estimating of Quantity of Materials and Transport

# **UNIT VI: Specifications**

Specifications – General Specifications, Detailed Specifications, Road Specifications.

### **References/Text Books:**

- 1. B.N. Dutta "Estimating & Costing in Civil Engineering Theory and Practice" UBS Publishers & Distributors Limited New Delhi 1996.
- 2. M. Chakrabrti "Estimating, Costing, Specification and Valuation on Civil Engineering" Calcutta, 2002

**Lecture Plan:** Unit-I & -II syllabus for MID-I, Unit-III & -IV syllabus for MID-II and Unit-V & -VI syllabus for MID-III examinations.