Course Number and Name BCE701 - ESTIMATION AND COSTING

Credits and Contact Hours

3 & 45

Course Coordinator's Name

Mr.S.Vinothkumar

Text Books and References

TEXT BOOK:

1. Estimating and costing in Civil Engineering –Dutta B.N & Dutta S UBS Publishers Distributors Pvt. Company, Lucknow 1986

REFERENCES:

- 1. Kohli, D.D and Kohli, R.C., "A Text Book of Estimating and Costing (Civil)", S.Chand & Company Ltd., 2004
- 2. Birdie G.S. "A text book on estimating and costing" Dhanpat Rai and Sons, New Delhi.
- 3. Jagannathan G, Getting more at less cost The Value Engineering Way, Tata McGraw Hill, New Delhi, 1992.

Course Description

• To provide the student with the ability to estimate the quantities of item of works involved in buildings, water supply and sanitary works, road works and irrigation works, and also to equip the student with the ability to do rate analysis, valuation of properties and preparation of reports for estimation of various items.

Prerequisites								Co-requisites						
	Ι		NIL											
	required, elective, or selected elective (as per Table 5-1)													
Co	ourse Outcon	mes (C	Os)											
	CO1	Will have a basic knowledge on methods and types of estimation and its merits and demerits												
	CO2	Have knowledge on specifications and tendering process for contracts												
CO3 Will have the ability to understand the types, formation, terms and condition contracts and arbitration									onditions	s in				
	CO4		Will have the knowledge of rate analysis of different item of work and MB and bill of quantities											
	CO5 Will able to value a property, price escalation recommendations and auditing													
Stu	udent Outco	mes (S	Os) fro	m Crite	rion 3 o	covered	by this	Course	e					
	COs/SOs	а	b	с	d	e	f	g	h	i	j	k		
	CO1	Н			М	Н		М			М			
	CO2			М										

CO3	М		Н				М	
CO4				Н	Н			
CO5	Н						Н	

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List of Topics Covered

UNIT I ESTIMATION

Purpose – Methods of estimation – advantages – types of estimates – detailed estimates of residential buildings – single storied and multistoried buildings – earthwork – foundations – Super structure – Fittings including sanitary and electrical fittings – paintings.

UNIT II SPECIFICATIONS AND TENDERS

Specifications – Detailed and general specifications – construction specifications – sources – types of specifications – Tender notices – types – corrigendum notice – tender procedures – Drafting model tenders

UNIT III CONTRACTS

Contract – types of contracts – formation of contract – contract conditions – contract problems – contract for labor, material, design and construction – drafting of contract documents – construction contracts – arbitration and legal requirements.

UNIT IV RATE ANALYSIS AND PREPARATION OF BILLS

Data – Rate analysis – abstract estimate – report to accompany estimate – measurement book – bills – types

UNIT V VALUATION

Basic – Principles of valuation – Value and Cost – value engineering – value analysis – phases in value engineering – information – function – escalation – evaluation – recommendation implementation – Audit