

GANPAT UNIVERSITY									
FACULTY OF ENGINEERING & TECHNOLOGY									
Programme		Bachelor of Technology			Branch/Spec.		CIVIL Engineering		
Semester		VI			Version		2.0.0.0		
Effective from Academic Year			2019-20		Effective for the batch Admitted in			2014-2015	
Subject code		2CI 604		Subject Name		ESTIMATING AND COSTING			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	2		2		4	Theory	40	60	100
Hours	2		4		6	Practical	35	15	50
Pre-requisites:									
Learning Outcome:									
By learning the subject students will be able to understand the concept of estimate of various items of Buildings, Roads & other civil engineering structures. Students will be able to read Structural drawing, Specification and cost analysis for various structural items/work carried out in construction work.									
Theory syllabus									
Unit	Content								Hrs
1	GENERAL: Purpose and importance of estimation, role of surveyor works. Types of estimates approximate estimating techniques for various civil engineering works, reading of working drawings, ISI code for measurements.								2
2	ESTIMATION OF BUILDINGS: Building components, measurement techniques for earthwork and masonry in foundation, measurement and estimation of different building components. Measurement and estimation of different R. C. C. items inclusive of reinforcement, estimation of beam, column, slab, footing and staircase etc. Estimation of finishing work and different types of roofs. Measurement and estimation of different woodwork and steelwork. Typical estimation of load bearing and a R. C. C. framed structure of one / two storeyed building along with schedule of materials and task force.								7
3	ESTIMATING OF OTHER CIVIL ENGINEERING STRUCTURES: Estimating of different roads and culverts. Earthwork estimation for earthen dam and irrigation channels. Rough estimation of domestic water supply, sanitation and septic tanks. Estimation of domestic electrical fixtures and work.								5

4	ANALYSIS OF RATES: Purpose and principal factors affecting the rates of an item of work, output of labour force. Analysis of rates for important building items and other typical civil engineering works mentioned above, S. O. R. statements.	4
5	ABSTRACTING AND BILLING : Abstracting methods relevant to ISI standards, preparation of abstract statements, cost analysis and statement.	2
6	SPECIFICATION WRITING : Purpose and basic principles of specifications, types of specification, study of important specification. Specification drafting for important civil engineering items - brief and detailed specification	2
Practical content		
Based on Syllabus Content		
Text Books		
1	Dutta B. N., “ Estimating and Costing “, S. Dutta& Co., Lukhnow - 1 (1997) UBS Publisher.	
Reference Books		
1	Birdie G. S., “Text book of Estimating and Costing “, DhanpatRai& Sons, Delhi - 6 (1988.)	
2	Rangwala S. C., “Elements of Estimating and Costing “,Charotar Publishing Pvt. Ltd., (1996).	