Course Code	Course Name	L-T-P-Credits	Year of Introduction
CE409	**QUANTITY SURVEYING AND VALUATION**	**3-0-0-3**	**2016**

Pre-requisites: CE334 Computer Aided Civil Engg. Lab

Course objectives:
- To have an awareness regarding specifications, analysis of rates, valuation etc. in connection with construction
- To prepare detailed estimates, bar bending schedules of various items of work

Syllabus :
Specifications- Analysis of rates- CPWD data book and schedule of rates- Detailed specification, preparation of data and analysis of rates for various items of work- Quantity Surveying- Types of Estimate - Valuation- Methods of valuation-Depreciation- Fixation of rent- Detailed estimate including quantities, abstract and preparation of various items of works, Preparation of bar bending schedules for various RCC works

Expected Outcomes:
The students will be able to
- i. work out the quantities of materials and labour required for different types of civil works
- ii. prepare schedule of rates for various items of work

Text Books
1. B N Dutta, Estimating and costing in Civil Engineering, USB publishers and distributers Ltd. New Delhi
2. D D Kohli, RC Kohli, A textbook of Estimating and costing, S Chand Publishing, 2011
3. Dr. S. Seetharaman, M. Chinnasamy, Estimation and Quantity Surveying, Anuradha Publications , Chennai.

References:
1. BS Patil, Civil Engineering contracts and estimates, Universities press
2. V N Vazirani & S P Chandola, Civil engineering Estimating and Costing, Khanna Publishers.
3. IS 1200-1968; Methods of measurement of Building & Civil Engineering works.
4. CPWD data book and schedule of rates.

Note:
For analysis of rate and cost estimation, unit rate and labour requirement should be given along with the questions in the question paper.. No other charts, tables, codes are permitted in the Examination Hall. If necessary, relevant data shall be given along with the question paper.

COURSE PLAN

Module	Contents	Hours	Sem. Exam Marks %
I	General Introduction- Quantity Surveying- Basic principles-Types of Estimates - Specifications- purposes and basic principles-general specifications - Detailed specifications-Method of measurement of various items of work. Analysis of rates- Introduction to the use of CPWD data book and schedule of rates- conveyance and conveyance statement -	6	10

	Miscellaneous charges.		
II	Preparation of data and analysis of rates for various items of work connected with building construction and other civil engineering structures with reference to Indian Standard Specification.	6	10

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FIRST INTERNAL EXAMINATION

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III	Detailed estimate including quantities, abstract and preparation of various items of works- buildings- centerline method and long wall short wall method- sanitary and water supply works- soak pits, septic tanks, overhead tanks, culverts, Retaining walls, road construction. Bar-bending schedule-preparation of bar-bending schedule for RCC works connected with building construction, culverts and minor irrigation works.	18	50

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SECOND INTERNAL EXAMINATION

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IV	Valuation - Explanation of terms, types of values, sinking fund, years purchase, Depreciation - Straight line method, constant percentage method, S.F method .Obsolescence. Valuation of real properties-rental method, profit based method, depreciation method. Valuation of landed properties -belting method, development method, hypothecated building scheme method. Rent calculation. Lease and Lease hold property	12	30

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END SEMESTER EXAMINATION

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QUESTION PAPER PATTERN (End semester examination)

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Maximum Marks: 100   **Exam Duration: 3 Hrs**

Part A -Module I & II   : 2 questions out of 3 questions carrying 10 marks each

Part B - Module III   : 2 questions out of 3 questions carrying 25 marks each

Part C - Module IV   : 2 questions out of 3 questions carrying 15 marks each

Note : 1. Part A should have at least one question from each module

         2. Part B three full questions carrying 25 marks on building estimate, preparation of bending schedule, or estimation of any other structure.

         3. Part A and C each question can have a maximum of 2 subdivisions (a, b)