**17CE3205 - QUANTITY SURVEYING AND VALUATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Category**  | Professional Core | **Credits**  | 4 |
| **Course Type**  | Theory | **Lecture - Tutorial - Practical**  | 3 - 2 - 0 |
| **Prerequisite**  | Building Technology | **Sessional Evaluation**  | 40 |
| **Semester End Exam Evaluation**  | 60 |
| **Total Marks**  | 100 |

|  |  |
| --- | --- |
| **Course Objectives** | 1. To prepare an estimate for civil engineering works.
2. To understand the significance of specifications.
3. To perform the rate analysis of various items of work.
4. To generate the contract and contract documents.
5. To prepare the tenders and arbitration of tenders.
6. To prepare the valuation document.
 |
| **Course Outcomes** | CO1 | Prepare approximate and detailed estimates of simple buildings. |
| CO2 | Understand the specifications of various components of simple buildings. |
| CO3 | Carry out the rate analysis for sub structure and super structure works of simple buildings. |
| CO4 | Perform rate analysis for roofing, plastering, pointing and wood works of simple buildings. |
| CO5 | Prepare contracts, tenders and arbitration of tenders. |
| CO6 | Prepare valuation document. |
| **Course Content** | **UNIT – I****INTRODUCTION:** General items of work in buildings – Standard units – Principles of working out quantities for detailed and abstract estimates – Approximate and detailed estimates of simple buildings and road works.**UNIT – II****SPECIFICATIONS:** Types – Standard specifications for different items of building construction – Earth work for foundations – Sand– Cement – Kankar – Mortars– Foundation concrete – Reinforced concrete – Brick work – Stone masonry – Lime–Mosaic Flooring – RCC roof and GI sheet roof – Plastering – Pointing – Painting and wood works.**UNIT – III****RATE ANALYSIS-I:**Earth work for foundations and basement of buildings.Mortars: Lime mortar (1:1.5) and Cement Mortar (1:4).Foundation Concrete: Lime concrete (1:2:4) and Cement Concrete (1:5:10).Reinforced Concrete: Lintels, Slabs, Beams and Columns (1:2:4).Brick work : Constructed with first class bricks with L.M. (1:1.5) and C.M.(1:6)Stone Masonry: C.R.S. – 1st sort constructed with C.M. (1:2) and R.R.Masonry.  Mud: Lime mortar (1:1.5) and C.M. (1:2).Flooring: 1. With Cuddapah or Shahbad slabs.
2. Ellis pattern flooring with 10cm concrete and 20mm cement concrete surface
3. Mosaic flooring.

**UNIT – IV****RATE ANALYSIS-II:**Roofing: a) R.C.C. roof 10cm thick, 2 courses of flat tiles to top.  b) A.C. corrugated sheet roofing on steel purlins.Plastering : a) With L.M. (1:1.5) 2 coats (20mm thick) b) C.M. (1:4) 12mm thick.Pointing: a) With C.M. (1:3) flush pointing to R.R. Masonry. b) C.M. (1:3) for brick masonry.Painting: a) White washing and colour washing of walls: 2 coats. b) Painting iron and wood work: 3 coats.Wood work: a) Panelled doors and windows. b) W.B.M. road with bituminous carpet 20mm thick.**UNIT –V****CONTRACTS:** Types of contracts– Contract document – Conditions of contracts– Contract procedure – Termination of contracts – Specifications – Important conditions of contract – Arbitration and tenders.**UNIT – VI****VALUATION:** Introduction–Technique of valuation–Elements of valuation and Factors affecting valuation–Methods of valuation of land property and building property– Rate of interest for sale– Purchase– Mortgage– Capital gain– Tax– Estate duty and death duty –Types of valuation – Valuation for renewal of lease– Extension of lease– Standard rent– Easement rights– Preparation of feasibility reports– Valuation of reports– Awards. |
| **Textbooks and References** | **TEXTBOOKS:**1. A Text book of Estimating and Costing by B.N. Dutta.
2. Estimating and Costing in Civil Engineering by G.S.Birdie.
3. Estimating, Costing and Valuation by Rangwala.

**REFERENCE BOOKS:**1. A.P.D.S.S. Standard data book Vol. II.
2. A.P. Department standard specifications.
3. Professional practice by Roshan Namvati.
 |