

## Tender and Contract Management

01CI0621

### Objective of the Course:

- To understand the importance of specifications, its types and drafting general specifications for civil works.
- To prepare comprehensive tender documents and analyze bids.
- To understand the tendering, contracting and bidding process in civil engineering projects.
- To understand the types of contract and its application in construction projects.

**Credit Earned: 04**

### Student's learning outcomes:

After successful completion of the course, it is expected that students will be able to,

1. Interpret the types of contracts and contracting terminologies involved in the projects, disputes and arbitration process.
2. Analyze the types of tenders and various terms associated with tender.
3. Prepare general specifications for civil works.
4. Practice the Bidding and Tendering Process for a project.

### Teaching and Examination Scheme

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	IA (M)	CSE (I)	Viva (V)	Term Work (TW)	
03	01	00	04	50	30	20	25	25	150

### Detailed Syllabus

Sr. No.	Title of the unit	Number of Hours
1	<b>Introduction to Contract</b>	8
	1.1 <b>Introduction:</b> Definition and legal issues in contract, Essential requirement of a contract, Characteristics of a good contract, Legal enforceability of contract, termination of contracts, Stake holders in construction contracts, Overview of Activities in Contract Management.	4
	1.2 <b>Conditions of Contracts:</b> General conditions & special conditions,	4

	Contract conditions for payments, Time delay, Scope changes, Extra claims, Termination of contracts, subcontracting. Disputes and Arbitration, Legal requirements of a valid contract	
<b>2</b>	<b>Construction Contracts</b>	<b>10</b>
	2.1 <b>Type of construction contracts:</b> Lump sum contracts, Fixed price contracts, Percentage rate contracts, Cost plus contracts, Target contracts, Design-Build contracts, Turn-key contracts, BOT contracts. Parties to a Contract, Contract Formation,	5
	2.2 <b>Common contract divisions:</b> Notice to proceed, rights and duties and responsibilities of various parties, Contract Duration and Price.	5
<b>3</b>	<b>Tendering</b>	<b>12</b>
	3.1 <b>Introduction:</b> Types and Process of tendering, Tender notice, Bid security, Prequalification process, Bidding strategy, Tender submission and evaluation, Tender rejection, Security deposits, Contract agreement & contract documents	8
	3.2 <b>Performance Parameters:</b> Delays, penalties and liquidated damages, Suspension and Termination of Tender.	4
<b>4</b>	<b>Specification</b>	<b>12</b>
	4.1 <b>Introduction:</b> Definition, Objectives and importance of specification, Principles of drafting specifications.	6
	4.2 <b>Types of Specification:</b> Drafting general specifications and detailed specifications for various civil work items, Specification of materials, specification of works.	6
	<b>Total</b>	<b>42</b>

### List of Tutorials

SR NO	TOPIC TO BE COVERED	HOURS
1	Collection of Evaluation of tender notices/ EOI, RFQ & RFP	2
2	Tender notice preparation	3
3	Drafting detailed specifications of different types of building works from excavation to foundations, superstructure and finishing operation	3
4	Case Study & evaluation of tender documents for: 1) Tendering process 2) Security and performance bonds 3) Risk assessments of contractual provisions 4) Arbitration/dispute resolution	3
5	Exercises on preparing tender documents for the following 1) Earth work 2) Construction of a small house as per given drawing 3) RCC works 4) Pointing, plastering and flooring 5) White-washing, distempering and painting 6) Wood work including polishing	3

	7) Sanitary and water supply installations 8) False ceiling, aluminum (glazed) partitioning 9) Tile flooring including base course 10) Preparation of comparative statement for item rate contract	
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### **Suggested Theory Distribution**

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve an effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
20%	30%	20%	15%	10%	5%

### **Instructional Method and Pedagogy:**

1. At the start of course, the course delivery pattern, prerequisite of the subject will be discussed.
2. Lectures will be taken in class room with the use of multi-media presentations, white board– mix of both.
3. Attendance is compulsory in lectures and laboratory which carries a 5% component of the overall evaluation.
4. Minimum two internal exams will be conducted and average of two will be considered as a part of 15% overall evaluation
5. Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval. It carries a weightage of 5%.
6. Surprise tests/Quizzes will be conducted which carries 5% component of the overall evaluation.

### **Recommended Study Material**

1. Civil Engineering Contracts and Estimates - B. S. Patil – Universities Press- 2006 Edition, reprinted in 2009.
2. The Indian Contract Act (9 of 1872), 1872- Bare Act- 2006 edition, Professional Book Publishers.
3. The Arbitration and Conciliation Act,(1996), 1996 (26 of 1996)- 2006 Edition, Professional Book Publisher.
4. Law of contract Part I and Part II, Dr. R.K. Bangia- 2005 Edition, Allahabad Law Agency.
5. Standard General Conditions for Domestic Contracts- 2001 Edition- Published by Ministry Of Statistics and Program Implementation, Government of India.
6. John Murdoch & Will Hughes, Construction Contracts - Law and Management" Spon Press, Taylor & Francis Group.

7. Gajera, G.T., "Law relating to Building and Engineering Contracts in India" Butterworths.
8. Govt of India, Central Public Works Department, "CPWD Works Manual 2003."
9. Govt of India, Central Public Works Department, "CPWD 7/8: General Conditions of Contracts."
10. V. K. Raina, Raina's Construction and Contract Management Vol.1 (Second Edition), SPD Publishers, 2009