

Chapter 1 : P.W.D. Procedure to Execute The Work

1-1 to 1-14

Syllabus : Organizational structure of Public Works Department (PWD), Functions of their personnel. Financial powers if any. PWD Procedure of initiating the work, Administrative approval, technical sanction, budget provision, Expenditure sanction.

Methods used in PWD for carrying out works contract method and departmental method, rate list method, piece work method, day's work method, employing labours on daily wages basis.

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Chapter 2 : Contracts

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Syllabus : Definition of contract, Objects of contract, requirements of valid contract, Overview of Indian Contract Act 1872. Types of engineering contract with advantages, disadvantages and their suitabilities, Lump sum contract, item rate contract, percentage rate contract, cost plus percentage, cost plus fixed fee, cost plus variable percentage and cost plus variable fee contract, labour contract, demolition contract, target contract, negotiated contract. All in contract, Engineering Procurement Construction Contract (EPC), Annuity Contract, Introduction of FIDIC conditions of contract. Classification of contractor on basis of financial limits, Requirement of documents for registration of contractor in Public Works Department (PWD). Built operate transfer (BOT) Project: Objectives, scope, advantages, disadvantages, Nature of agreement, mode of payment, examples.



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Chapter 3 : Tender and Tender Documents**3-1 to 3-37****Syllabus** : Introduction :

Definition of tender : Necessity of tender, Types of tender-local, Global, open Limited and negotiated tender.

Notice to invite Tender : Points to be included while drafting tender Notice, Drafting of tender notice.

Meaning of terms : Earnest money deposit (EMD), Security deposit, Additional performance security deposit, Validity period, Right to reject one or all tenders, Corrigendum to tender notice and its necessity.

Tender documents : Index, tender notice, general instructions, special instructions, schedule a, schedule b, schedule c, Terms related to tender documents.

Contract conditions : time limit, time extension, penalty, defective material and workmanship, termination of contract, suspension of work, subletting of contract, Extra items, price variation clause (escalation), Defect liability Period, liquidated and unliquidated damages.

Arbitration : Meaning, Qualification of an arbitrator, appointment, clauses and settlement of disputes, powers and duties of arbitrator, award of result.

Procedure of submitting filled in tender document(Two envelope system), Procedure of opening tender, Comparative statement, Scrutiny of tenders, Award of contract, Acceptance letter and work order.

E-Tendering System-Online procedure of submission of tender in PWD.

Unbalanced tender, ring formation.

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Measurement Books, E-measurement book(E-MB), Nominal Muster Roll (NMR), Imprest Cash, Indent, Invoice, Bills, Vouchers, Hand Receipt, Cash Book, Temporary Advance. Heads of Accounts.

Mode of Payment to the contractor and its necessity

Interim Payment, Advance Payment, Secured Advance, Petty advance, Mobilization advance, First And Final Payment, Final Bill,

Running Account payment, , Retention money, Reduced rate payment, E-payment.

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Chapter 5 : Specifications

5-1 to 5-23

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 Brief and Detailed, Standard and Manufacturers specification.
 Preparing Detailed Specifications of items in civil engineering works from each of following: building construction, Irrigation Engineering, Transportation Engineering, Public Health Engineering.

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Chapter 6 : Valuations

6-1 to 6-42

Syllabus : Definition and Necessity of Valuation. Role of valuer. Define - Cost, Price and Value, Characteristics of Value, Factors Affecting Value. Types of Value: - Book Value, Scrap Value, Salvage Value, Speculative Value , Distress Value, Market Value, monopoly Value, Sentimental Value. Factors Affecting Value.
 Depreciation, Obsolescence, Sinking Fund. Methods of Calculation of Depreciation – Straight Line Method, Sinking Fund Method, Constant Percentage Method.
 Computation of Capitalized Value, Gross Income, Outgoings, Net Income, Years Purchase. Types of Outgoings. Fixation of Rent as Per PWD Practice. Lease – types of lease, lease hold property, and free hold property, Mortgage - mortgage deed, precautions to be taken while making mortgage.



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