

GOVERNMENT POLYTECHNIC, BALANGIR

DEPARTMENT OF CIVIL ENGINEERING

LESSION PLAN

SESSION 2023-24

SUBJECT: ESTIMATION AND COST EVALUATION-2	BRANCH: CIVIL ENGINEERING
NAME OF THE FACULTY: KSHIROD BIHARI RANA	SEMESTER: 5 TH

SL NO.	CHAPTER	HOURS	LECTURE NO.	TOPIC TO BE COVERED
1	CHAPTER 01	12		Detailed estimate of culverts and bridges
			1	Introduction Bridge and Culvert
			2	Types of Bridges
			3	Difference between Bridge and Culvert
			4	Detailed estimate of a RCC slab culvert: Earthwork excavation of foundation and 1 st class brickwork up to Parapet wall
			5	Detailed estimate of a RCC slab culvert: RCC work in slab excluding steel
			6	Detailed estimate of a RCC slab culvert: Steel bar including bending in RCC work (BBS)
			7	Detailed estimate of a RCC slab culvert: Cement concrete 1:2:4 wearing coat
			8	Detailed estimate of a RCC slab culvert: Cement Pointing 1:2 in Walls
			9	Detailed estimate of a Hume pipe culvert: Earthwork excavation of foundation, Cement concrete 1:4:8 in foundation
			10	Detailed estimate of a Hume pipe culvert: First class brick in 1:6 cement sand mortar
			11	Detailed estimate of a Hume pipe culvert: Cement pointing 1:2 in expose
			12	Detailed estimate of a Hume pipe culvert: Hume pipe heavy type 60 cm diameter including collar joint, Revision
2	CHAPTER 02	14		Estimate of Irrigation Structure
			1	Detailed estimate of Simple type of vertical fall: Earthwork excavation in Foundation
			2	Detailed estimate of Simple type of vertical fall: Cement Concrete 1:3:6, Deduction
			3	Detailed estimate of Simple type of vertical fall: 1st class Brick Work
			4	Detailed estimate of Simple type of vertical fall: Brick on edge floor in 1:8
			5	Detailed estimate of Simple type of vertical fall: Cement Pointing in 1:3
			6	Detailed estimate of Simple type of vertical fall: Brick Pitching
			7	Detailed estimate of Drainage Syphon: Earthwork excavation in Foundation
			8	Detailed estimate of Drainage Syphon: Cement Concrete 1:4:8 with brick ballast
			9	Detailed estimate of Drainage Syphon: 1st class Brick Work in 1:4 cement mortar
			10	Detailed estimate of Drainage Syphon: R.C.C. slab of syphon duct including steel reinforcement concrete work

			12	Detailed estimate of Drainage Syphon: Cement struck pointing 1:2
			13	Detailed estimate of Drainage Syphon: 10 cm dry brick pitching with straight over burnt bricks bed of nala
			14	Revision
3	CHAPTER 03	12		Detailed Estimate of Road
			1	Detail Estimate of a water bound macadam: Introduction
			2	Detail Estimate of a water bound macadam
			3	Detail Estimate of a water bound macadam
			4	Detail Estimate of a water bound macadam
			5	Detail Estimate of a flexible pavement in cutting / filling
			6	Detail Estimate of a flexible pavement in cutting / filling
			7	Detail Estimate of a flexible pavement in cutting / filling
			8	Detail Estimate of a flexible pavement in cutting / filling
			9	Detail Estimate of septic tank and soak pit for 50 users
			10	Detail Estimate of septic tank and soak pit for 50 users
			11	Detail Estimate of septic tank and soak pit for 50 users
			12	Detail Estimate of septic tank and soak pit for 50 users
4	CHAPTER 04	12		Miscellaneous Estimate
			1	Tube well
			2	Tube well
			3	Tube well
			4	Tube well
			5	Tube well
			6	Piles and Pile cap
			7	Piles and Pile cap
			8	Piles and Pile cap
			9	Piles and Pile cap
			10	Isolated and combined footing

			11	Isolated and combined footing
			12	Isolated and combined footing
5	CHAPTER 05	10		PWD Accounts Work
			1	Works, Classification of work-original, major, petty, repair work, Annual repair, Special repair, Quadrantal repair.
			2	Concept of method of execution of works through the contractors and department, contract and agreement, work order, types of contracts, piece work agreement.
			3	Accounts of work- Explanation of various terms, Administration approval, technical sanction, tender, preparation of notice inviting tender, Quotations, Earnest money.
			4	Advance payment, intermediate payment, final payment, running bill, final bill, regular and temporary establishment, cash, major and subhead of account, temporary advance (imprest money), supervision charges, suspense account, debit, credit, book transfer, voucher and related accounts.
			5	Measurement book use and maintenance, procedure of marking entries of measurement of work and supply of materials, labour employed, standard measurement books and common irregularity.
			6	Muster roll: Its preparation and use for making payment of pay and wages
			7	Acquittance Roll: Its preparation and use for making payment of pay & wages
			8	Labour and labour report, methods of labour payment, use of forms and necessity of submission.
			9	Classification of stores, receipt/ issue statement standard form, method of preparation of stock account, preparation and submission of returns, verification of stocks, shortage and excess
			10	Building BYLAWS & REGULATORY bodies, Development authorities, types and their levels, RERA etc