



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY  
SERGARH-756060, BALASORE (ODISHA)  
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



## **LESSON PLAN**

**SUBJECT: Th-5 (ESTIMATION & COST EVALUATION-II)**

### **CHAPTER WISE DISTRIBUTION OF PERIODS**

| Sl.No. | Name of the chapter as per the Syllabus   | No. of Periods as per the Syllabus | No. of periods actually needed |
|--------|---|------------------------------------|--------------------------------|
| 1      | Detailed estimate of culverts and bridges | 12                                 | 12                             |
| 2      | Estimate of irrigation structures         | 14                                 | 14                             |
| 3      | Detailed estimate of roads                | 12                                 | 12                             |
| 4      | Detailed estimates of miscellaneous works | 12                                 | 12                             |
| 5      | PWD accounts works                        | 10                                 | 10                             |
|        | Total Period:                             | 60                                 | 60                             |

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| <b>Discipline:</b><br>CIVIL<br>ENGINEERING | <b>Semester:</b><br>5th | <b>Name of the Teaching Faculty:</b> Er. Kumar Swatiranjan |
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| Week                  | Class Day             | Theory / Practical Topics   |
|-----------------------|-----------------------|---|
| <b>1<sup>st</sup></b> | <b>1<sup>st</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
|                       | <b>2<sup>nd</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
|                       | <b>3<sup>rd</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
|                       | <b>4<sup>th</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
| <b>2<sup>nd</sup></b> | <b>1<sup>st</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
|                       | <b>2<sup>nd</sup></b> | 1.Detailed estimate of culverts and bridges<br>1.1 Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule |
|                       | <b>3<sup>rd</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
|                       | <b>4<sup>th</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
| <b>3<sup>rd</sup></b> | <b>1<sup>st</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
|                       | <b>2<sup>nd</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
|                       | <b>3<sup>rd</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
|                       | <b>4<sup>th</sup></b> | 1.2 RCC Hume pipe culvert with splayed angled wing wall   |
| <b>4<sup>th</sup></b> | <b>1<sup>st</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification                               |
|                       | <b>2<sup>nd</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification                               |

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| <b>4</b>              | <b>3<sup>rd</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification |
|                       | <b>4<sup>th</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification |
| <b>5<sup>th</sup></b> | <b>1<sup>st</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification |
|                       | <b>2<sup>nd</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification |
|                       | <b>3<sup>rd</sup></b> | 2.Estimate of irrigation structures<br>2.1 Detailed estimate of simple type of vertical fall to given specification |
|                       | <b>4<sup>th</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
| <b>6<sup>th</sup></b> | <b>1<sup>st</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
|                       | <b>2<sup>nd</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
|                       | <b>3<sup>rd</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
|                       | <b>4<sup>th</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
| <b>7<sup>th</sup></b> | <b>1<sup>st</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
|                       | <b>2<sup>nd</sup></b> | 2.2 Detailed estimate of drainage siphon to given specification.  |
|                       | <b>3<sup>rd</sup></b> | 3.Detailed estimate of roads<br>3.1 Detail estimate of a water bound macadam road                                   |
|                       | <b>4<sup>th</sup></b> | 3.Detailed estimate of roads<br>3.1 Detail estimate of a water bound macadam road                                   |
|                       | <b>1<sup>st</sup></b> | 3.Detailed estimate of roads<br>3.1 Detail estimate of a water bound macadam road                                   |

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| <b>8<sup>th</sup></b>  | <b>2<sup>nd</sup></b> | 3.Detailed estimate of roads<br>3.1 Detail estimate of a water bound macadam road |
|                        | <b>3<sup>rd</sup></b> | 3.2 Detailed estimate of a flexible pavement in cutting / filling                 |
|                        | <b>4<sup>th</sup></b> | 3.2 Detailed estimate of a flexible pavement in cutting / filling                 |
| <b>9<sup>th</sup></b>  | <b>1<sup>st</sup></b> | 3.2 Detailed estimate of a flexible pavement in cutting / filling                 |
|                        | <b>2<sup>nd</sup></b> | 3.2 Detailed estimate of a flexible pavement in cutting / filling                 |
|                        | <b>3<sup>rd</sup></b> | 3.2 Detailed estimate of septic tank and soak pit for 50 users                    |
|                        | <b>4<sup>th</sup></b> | 3.2 Detailed estimate of septic tank and soak pit for 50 users                    |
| <b>10<sup>th</sup></b> | <b>1<sup>st</sup></b> | 3.2 Detailed estimate of septic tank and soak pit for 50 users                    |
|                        | <b>2<sup>nd</sup></b> | 3.2 Detailed estimate of septic tank and soak pit for 50 users                    |
|                        | <b>3<sup>rd</sup></b> | 4.Miscellaneous estimates<br>well 4.1 Tube  |
|                        | <b>4<sup>th</sup></b> | 4.1 Tube well   |
| <b>11<sup>th</sup></b> | <b>1<sup>st</sup></b> | 4.1 Tube well   |
|                        | <b>2<sup>nd</sup></b> | 4.1 Tube well   |
|                        | <b>3<sup>rd</sup></b> | 4.1 Piles and Pile cap  |
|                        | <b>4<sup>th</sup></b> | 4.1 Piles and Pile cap  |

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| <b>12<sup>th</sup></b> | <b>1<sup>st</sup></b> | 4.1 Piles and Pile cap   |
|                        | <b>2<sup>nd</sup></b> | 4.1 Piles and Pile cap   |
|                        | <b>3<sup>rd</sup></b> | 4.1 Isolated and combined footings   |
|                        | <b>4<sup>th</sup></b> | 4.1 Isolated and combined footings   |
| <b>13<sup>th</sup></b> | <b>1<sup>st</sup></b> | 4.1 Isolated and combined footings   |
|                        | <b>2<sup>nd</sup></b> | 4.1 Isolated and combined footings   |
|                        | <b>3<sup>rd</sup></b> | 5.PWD Accounts works<br>5.1 Works<br>5.1.1 Classification of work-original, major, petty, repair work, annual repair, special repair, quadrantal repair  |
|                        | <b>4<sup>th</sup></b> | 5.1.2 Concept of Method of execution of works through the contractors and department, contract and agreement, work order, types of contract, piece work agreement  |
| <b>14<sup>th</sup></b> | <b>1<sup>st</sup></b> | 5.2 Accounts of works –<br>5.2.1 Explanation of various terms<br>Administrative approval, technical sanction, tender, preparation of notice inviting tender, quotations, earnest money, E-tendering, security deposit, advance payment, intermediate payment, final payment, |
|                        | <b>2<sup>nd</sup></b> | 5.2.1 running bill, final bill, regular and temporary establishment, cash, major & subhead of account, temporary advance (imprest money),supervision charges, suspense account, debit, credit, book transfer, voucher and related accounts .                                 |
|                        | <b>3<sup>rd</sup></b> | 5.2.2 Measurement book use & maintenance, procedure of marking entries of measurement of work and supply of materials, labour employed, standard measurement books and common irregularity   |
|                        | <b>4<sup>th</sup></b> | 5.2.3 Muster roll : Its preparation & use for making payment of pay & wages  |
|                        | <b>1<sup>st</sup></b> | 5.2.4 Acquittance Roll : Its preparation & use for making payment of pay & wages   |

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| 15 <sup>th</sup> | 2 <sup>nd</sup> | 5.2.5 Labour & labour report, method of labour payment, use of forms and necessity of Submission   |
|                  | 3 <sup>rd</sup> | 5.2.6 Classification of stores, receipt / issue statement on standard form, method of preparation of stock account, preparation and submission of returns, verification of stocks, shortage and excess |
|                  | 4 <sup>th</sup> | 5.3 Building BYLAWS and REGULATORY Bodies, Development authorities, types and their levels, RERA etc.  |