

BANGLADESH SWEDEN POLYTECHNIC INSTITUTE, KAPTAI
SEMESTER PLAN

DEPARTMENT OF CONSTRUCTION TECHNOLOGY

Teacher Name: Engr. Md. Musharraf Hossain Subject: Estimating & Costing-I (26442) Practical

THEORY

Week No.	Content	Brief Description of Content
01	INTRODUCTION TO ESTIMATING	1.0 Understand the basic concept of estimating. 1.1 Define the term estimating. 1.2 State the methods of estimating. 1.3 Mention the rules and methods of measurements of works. 1.4 Mention the rules of deduction for opening, bearing etc. in masonry.
02	INTRODUCTION TO ESTIMATING & QUANTITY ESTIMATION	1.5 List unit weight of different materials used in construction works. 1.6 Write unit of different items of works as per standard practice. 2.1 Mention the rules of finding out the volume of earth work by mid area method.
03	QUANTITY ESTIMATION	2.2 Mention the rules finding out the volume of earth work by mean area method. 2.3 Mention the rules finding out the volume of earth work by primoidal method.
04	1ST Quiz Test	Chapter: 01 to 02
	Estimate the volume of earth work for road embankment.	3.1 Identify the side slopes for different heights of road embankment. 3.2 Identify the cross section of road embankment. 3.3 State the method of finding out the volume of earth work in embankment by mid area method.
05	Estimate the volume of earth work for road embankment.	3.4 State the method of finding out the volume of earth work in embankment by mean area method. 3.5 State the method of finding out the volume of earth work in embankment by primoidal method.

Week No.	Content	Brief Description of Content
06	Estimate the volume of earth work for canal digging.	4.1 Identify the cross section of partly banking and partly cutting. 4.2 Explain the method of finding out volume of earth works for partly banking and partly cutting. 4.3 Explain the terms lead and lift.
07	1st Class Test	Chapter: 03-04
08	Estimate the different quantities of items of work in steps, boundary wall and roads.	5.1 Identify different parts of steps. 5.2 List different items of works in a boundary wall. 5.3 List different items of works in a bituminous road. 5.4 List different items of works in a RCC road.
09	Understand the procedure of estimating a simple building	6.1 State center line and separate wall method. 6.2 Mention the advantage and disadvantage of center line and separate wall methods. 6.3 Explain the methods of deduction for opening or over lapping. 6.4 Define the terms sub-structure and super-structure. 6.5 Explain the dimensions length, breadth and height or depth of any section. 6.6 Identify main wall, partition wall, outer wall, inner wall, parapet wall etc.
10	Understand the procedure of estimating a simple building	6.7 Identify RCC work in lintel, beam, stair, floor/roof slab, sunshade, shelve, railing, drop wall etc. 6.8 List different sizes of doors and windows. 6.9 List the number of ventilators required. 6.10 Identify the items of work for civil construction.
10	Understand the estimate of roof truss (wooden & steel).	7.1 State the purpose of roof trusses. 7.2 State the way of calculating the quantities of wood required in a roof truss. 7.3 State the way of calculating the quantities of steel required in a roof truss. 7.4 Mention the standard lapping at end & sides of CI sheet for roofing.
	2nd Quiz Test	Chapter: 05-06

11	Understand the estimate of roof truss (wooden & steel).	7.5 State the way of calculating the quantities of CI sheet for roof covering. 7.6 State the way of calculating the quantities of GI ridding. 7.7 State the way of calculating the painting works of roof truss.
12	Understand the estimate of sinking deep tube well.	8.1 State the meaning of deep tube well. 8.2 List the various accessories required for sinking a deep tube well. 8.3 Mention the different sections of a deep tube well. 8.4 Describe the step by step procedure reverse circulation method of sinking a deep tube well. 8.5 State the method of calculating the quantities of materials required for a deep tube well. 8.6 State the meaning of commissioning deep tube well
13	Understand the estimate of sinking deep tube well & understand the basic concept of rate analysis.	8.5 State the method of calculating the quantities of materials required for a deep tube well. 8.6 State the meaning of commissioning deep tube well. 9.1 State meaning of rate analysis. 9.2 Explain the purposes of rate analysis.
14	Understand the basic concept of rate analysis.	9.1 State meaning of rate analysis. 9.2 Explain the purposes of rate analysis. 9.3 Explain the terms, contractors profit, overhead charges, contingency sundries and lumsum. 9.4 Mention the advantage of rate analysis to prepare cost estimate.
	2nd Class Test	Chapter: 07-09

REFERENCE BOOKS

1. Estimating and costing – B N Datta
2. Estimating and costing – Gurucharan Singh