GOVERNMENT OF TAMILNADU

DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI

STATE PROJECT COORDINATION UNIT

(Established Under Canada India Institutional Cooperation Project)

CURRICULUM

Course Name	BUILDING ESTIMATION AND COSTING USING ESTIMATOR SOFTWARE
Course Code	CE / 2020 / 014
Course Duration	40 Hours
Minimum Eligibility Criteria and Pre-requisites (if any)	10th/+2/Diploma/Graduates
Course Objectives	Training Module has been designed for the Participants to • Gain a basic knowledge on methods and types of estimation and its merits and demerits • Understand the Master Functions of Estimator Software • Understand the User Functions Of Estimator Software
Course Outcomes	At the end of training the participants will be able to • Do the rate analysis of different item of work, MB and Bill of Quantities • Work easily with Estimator • Value a property, price escalation recommendations and auditing
Expected Job Roles	• Quantity Engineers

TEACHING AND SCHEME OF EXAMINATION						
Course Code	**Course Name**	**Hours**		**Assessment Marks**		**Duration of Examination**
				Min	**Max**	
CE / 2020 / 014	**BUILDING ESTIMATION AND COSTING USING ESTIMATOR SOFTWARE**	Theory	16	10	20	**3 Hours**
		Practical	24	40	80	
		Total	**40**	**50**	**100**	

DETAILED SYLLABUS

Unit No	Modules	No. of Hours	
		Theory	Practical
I	**INTRODUCTION**	04	06
	Introduction - Technical terms- Unit measurements-Rules for measurements-Requirements of estimating and costing - Drawings - Specifications - Detailed Estimate - Data-Types of estimates.		
II	**BUILDINGS ESTIMATION**	04	06
	Project information - Project Functions-Project Details-Walls-Rooms-Openings-Concretes - Concrete Plastering-Tiling walls- Steel Requirements.		
III	**MASTER FUNCTIONS**	04	06
	Works-Works Specifications-Purchase Functions-Purchase Order-Purchase Reception – Report-Report Functions.		
IV	**USER AND ADMIN FUNCTIONS**	04	06
	User Management-Export Project-Open file-Compact Data-Backup Data-Payments.		
	TOTAL THEORY AND PRACTICAL HOURS	**16**	**24**
	TOTAL HOURS	**40**	

PRACTICAL EXERCISES (24 HOURS)	
SL.NO.	List of Experiments
1.	Calculate the total cost of the Brick work for given measurements using Estimator
2.	Calculate the Rate analysis for CM 1:3 &1:5 using Estimator
3.	Calculate quantity of steel requirements for the given beam using Estimator.
4.	Calculate the painting work quantity from the given building..
5.	Estimate the total quantity of painting work for given building Plan.
6.	Calculate the Rate analysis for CM 1:4 & 1:2 using Estimator
7.	Calculate quantity of steel Requirements for given Column using estimator.
8.	Calculate the Rate analysis for cement concrete 1:2:4 using estimator.
9.	Estimate the total quantity of Painting work for given Doors.
10.	Estimate the total quantity of Painting work for given windows.
11.	Calculate the quantity of steel Requirements for given lintel cum sunshade.
12.	Calculate quantity of steel Requirements for given Slab using estimator.

HARDWARE REQUIREMENT

SL. NO.	LIST OF TOOLS / EQUIPMENTS
1.	CPU - 64bit Intel® or AMD® multi-core processor
2.	RAM - 4 GB of RAM minimum (4 GB or more recommended)
3.	DISK SPACE - 4 GB of free disk space for installation
4.	VGA Monitor
5.	USB Key Board
6.	USB Optical Mouse

SOFTWARE REQUIREMENT

SL. NO.	NAME OF THE SOFTWARE
1.	ESTIMATOR 2000 V 2.0

REFERENCE BOOKS

SL.NO	NAME OF THE BOOK	AUTHOR	PUBLISHER
1.	A Text book of Estimating and Costing	D.D. Kohl	Chand& Co.,
2.	Estimator User Manual	- - -	Ref : Internet source

ASSESSMENT AND CERTIFICATION

S.No	Criteria for Assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the CIICP Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 Word/ Objective type questions).
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the CIICP Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The passing criteria for successful completion of training is every trainee should score 50% of marks in the End Theory and Practical examination.
6.	On successful completion of training, Certificate will be issued to the participants by the Directorate of Technical Education through the Project Polytechnics.

END EXAMINATION

ALLOCATION OF MARKS

S. No.	Description	Maximum Marks
1.	THEORY EXAM	20
2.	PRACTICAL EXAM	
	a. PROCEDURE / FIGURES	20
	b. CALCULATION	30
	c. RESULT / OUTPUT	10
	d. RECORD	20
	TOTAL MARKS	**100**

CE / 2020 / 014 – BUILDING ESTIMATION AND COSTING USING ESTIMATOR SOFTWARE
(Maximum Marks: 20)

(N.B: Answer any **Twenty** Questions)   **20 x 1 = 20 Marks**

1. How to export a project?

2. How to change rates and specifications permanently?

3. How to change rates and specifications for a project?

4. How to copy a selected work(s) to a particular floor?

5. How to set the report title?

6. How to print estimates without lines?

7. How to print Client Details in Report Header?

8. How to reprint 'Bills' and 'Purchase Documents' once created?

9. How after sale support provide?

10. What are the main modules in Estimator?.

11. Where the files are stored?

12. How to take a backup?

13. How to create Users and Passwords?

14. What are the inputs required for quantity calculations?

15. Is it possible to use drawings as inputs for Quantity Estimation?

16. How to copy a project?.

17. How to copy all the works from a floor to the following floors in typical structure?

18. How to print Client Details in Report Header?.

19. How to preview and print a report?

20. What are the types of items of works available?

21. Is it possible to enter the quantity of work directly, without entering its dimensions?

22. How to adjust the rates to a particular percentage?

23. Is it possible to maintain a database of Contractors?

24. Is it possible to maintain a database of suppliers?

25. How to enter Deductions?