

**AIMS:**

- To understand the concept and working definition of cost estimation in printing industry.

**SHORT DESCRIPTION:**

Function of costing and estimating; cost estimating; method of quotation & tender; technical background of an Estimator; administrative function in a printing company; estimation of type works of book and magazine; estimating of digital printing; routine work of estimating; make-ready work for running the press; materials wastage allowance and print finishing work.

**DETAIL DESCRIPTION:****Theory:****1. Understand the function of costing and estimating.**

- 1.1 Define Costing & Estimating.
- 1.2 Classification of Costing.
- 1.3 Define Job & Marginal costing.
- 1.4 Describe the purpose of Estimating.
- 1.5 Describe the importance of Estimating.
- 1.6 Difference between Costing & Estimating.

**2. Understand Cost Estimating.**

- 2.1 Describe the method of Costing.
- 2.2 Describe the procedure of Estimating.
- 2.3 Define Budgeted Hourly Rates.
- 2.4 Describe Production Cost and Overhead Cost.
- 2.5 Describe the factors to be considered for Estimating.
- 2.6 Explain the relation of estimating with production cost.
- 2.7 Define Activity based costing and Job Costing.

**3. Understand the method of Quotation & Tender.**

- 3.1 Define quotation.
- 3.2 Define Unit Cost.
- 3.3 Describe Depreciation Cost.
- 3.4 Define Tender, Work Order Sheet/ Job Sheet.
- 3.5 Define customer price.
- 3.6 Difference between quotation and tender.
- 3.7 Describe the relation of quotation and tender with cost estimating.

**4. Understand technical background of an Estimator.**

- 4.1 Describe the Role of an Estimator.
- 4.2 Importance of technical knowledge for preparing accurate estimating.
- 4.3 Time limitation for a particular printing job.
- 4.4 Procedure of selection the printing press and equipment for particular printing job.
- 4.5 Describe the different printing process and production records.
- 4.6 Describe the calculating process of paper weight and ink coverage.
- 4.7 Learning about fixed cost, variable cost and BPIFs costing systems.

## **5. Understand the administrative function in a printing company.**

- 5.1 Explain the procedure of making work order sheet.
- 5.2 Describe the preparation of correct estimating.
- 5.3 Describe the production planning and control.
- 5.4 Describe the procedure of purchasing.
- 5.5 Explain the method of pricing/ invoicing of a product.
- 5.6 Describe the effects of wastage control in cost estimating.
- 5.7 Describe the customer services.

## **6. Understand the estimation of type works of book and magazine.**

- 6.1 Define casting off, copy fitting, casting up and operational times.
- 6.2 Define the calculation, character per line and per page.
- 6.3 Describe page size, number of forma and sheet per book.
- 6.4 Define periodical calculation.
- 6.5 Describe the processing charge of single forma and single color.
- 6.6 Describe the printing charge of a forma per thousand and per color.
- 6.7 Describe the process for calculating operational time of plate exposers & plate processor for preparing image carrier.

## **7. Understand Estimating of Digital Printing.**

- 7.1 Define Digital Printing.
- 7.2 Explain the role of computer to produce accurate estimate.
- 7.3 Describe the advantages of computerized estimating system.
- 7.4 Discuss Digital Front-end & variable Data Printing Costs.
- 7.5 Describe Estimating Mailing and Hybrid Work.
- 7.6 Learning Cost analysis and Estimating Software.
- 7.7 Distinguish between Traditional and Digital estimating system.

## **8. Understand the routine work of estimating.**

- 8.1 Explain full job description of an estimator.
- 8.2 Describe working method of an estimator.
- 8.3 Explain half sheet work, Sheet work and Work & tumble work.
- 8.4 Difference between various working methods.
- 8.5 Materials used in cost estimating.

8.6 Explain the query of standard market price of different raw materials.

**9. Understand the make-ready work for running the press.**

9.1 Define Make ready work.

9.2 Explain the make-ready time and print test time of a press.

9.3 Define speed of a press to calculate the impress per hour and per color.

9.4 Describe the summary of operational time and speed from table work.

9.5 Selection of Raw materials as per cost estimating.

**10. Understand materials wastage allowance and print finishing work.**

10.1 Define allowance for paper wastage.

10.2 Define ink wastage.

10.3 Define wastage of process works.

10.4 Define print finishing work.

10.5 Describe the manual procedure of print finishing work.

10.6 Explain the auto procedure of print finishing work.

10.7 Define commercial binding.

10.8 Explain how binding make effect on cost estimating.

**Practical:**

1. Calculate the GSM from given sample.
2. Find the art and copy preparation cost. (Plate & Positive)
3. Calculate the Per Thousand impression rate for different printing machines.
4. Find the number of output of particular size from Different size of paper.
5. Calculate the number sheets/Forma required for a book of 8.5"x11" size and the number of page will be 96.
6. Calculate how much ink needs for particular jobs.
7. Calculate the Number of Cutting & Costing for Different type paper
8. Estimate to complete a particular job (Letterhead pad: size A4, Color: Four Color, 100gsm Offset quantity: 1000pcs).
9. Estimate to complete a particular job (Visiting Card: Size: 3.5x2 inch, Color: Four Color, Board: Art Card: 300gsm, Lamination: Mat & Spot, Quantity: 1000pcs).
10. Estimate to complete a particular job (Voucher: Size: 5.5x8.5 inch, Color: Single Color, Board: Paper: 60gsm Auto carbon Paper, Numbering, Perforation, and Quantity: 10Books, Each Book should be 100 pages).
11. Calculate to complete a particular job (Invitation card: Size: 13"x5" inch, Color: Four Color,
12. Board: Paper: 60gsm Color Paper, Numbering, Perforation, Quantity: 10Books, Each Book should be 100pages)
13. Calculate the total cost required for printing a calendar of four pages of four colors of demy size.
14. Estimate the paper and board of corrugation boxes & cartoons
15. Estimate the films, foils, paper & board used in gravure and Flexo printing.