

B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2012
PRINTING TECHNOLOGY BRANCH
SIXTH SEMESTER
PT 9353 COST ESTIMATION FOR PRINTING
(REGULATIONS 2008)

Time: 3 hr

Max Mark: 100

Answer ALL Questions
Part – A (10 x 2 = 20 Mark)

1. Define 'Cost accounting?'
2. Differentiate between a forecast and budget?
3. State the difficulties the printing estimator frequently encounters?
4. What is known as "Price estimating"?
5. Estimate the quantity of stitching wire required for making 1, 50,000 answer books in A4 size. There are two wire staples in each answer book and each stitch requires 30 mm wire of 22 gauges.
6. The number of Demy Octavo size that can be typeset in 8 hrs. shift is 24 pages (200 sq.cm). The factor for the features for the job is 1.9. The CMHR of the typesetting unit is Rs.145/-. Find out the total typesetting cost for typing 320 pages of typeset area per page is 153 sq.cm.
7. What are factory costs and list out the costs which come under factory cost?
8. Define shut down and sunk cost?
9. You can get an annual rate of interest of 13 percent on a public deposit with a company. What is the effective rate of interest if compounding is done half-yearly?
10. What is known as 'Break – even analysis'?

Part – B (5 x 16 = 80 Mark)

11. Write down the procedure for selling, estimating, pricing and quoting for a typical print job.
12. (a) What is known as budgetary control? Comment on "Budgetary control as a management tool" and list out its advantages and disadvantages.

(or)

- (b) (i) Explain in detail about the different classification of budget? (10)
- (ii) From the following, calculate the works cost: (6)

Material	:	Rs.60, 000
Labour	:	Rs.40, 000
Direct expenses	:	Rs.10, 000
Factory overheads	:	Rs.50, 000
Work-in progress		
Opening stock	:	Rs.10, 000
Closing stock	:	Rs.8, 000

13. (a) (i) A reel having a net weight of 200 kg is to be cut into sheets of 44 x 62 cm size. How many sheets will it make if the paper on reel has a substance of 80gsm (4)
- (ii) Cream wove paper of 80 gsm of size 51 x 76 cm required for 20,000 copies of the book of 396 text pages of crown octavo. The book thickness is 1.6 cm. Calculate

the cost of paper and board assuming the cost/kg of paper as Rs.46/- and cost/kg of board as Rs.72/ (12)

(or)

(b) (i) Estimate the quantity of ink required in kilogram for 30,000 copies of a sheet of labels, 20 labels to view per sheet with each label having a print area 179 x 194 mm printed on one side of a high gloss coated paper. The process of printing is offset and the labels are printed in four color halftone picture. Find the cost of ink assuming the cost/kg of ink is Rs.500. (8)

(ii) Find out the quantity of ink required for the printing of 15000 posters of 38 x 50 cm size in 4 colors from a color transparency on Art paper by using offset process. Wastage of paper (1%) and ink should also be taken into account. (8)

14. (a) Calculate the CMHR of a paper cutting machine for the following specification:

The capital cost of the machine is Rs. 17, 50,000/-. One cutter, two helpers and a supervisor (60%) are working at the monthly salary of Rs. 8000, Rs.5000 and Rs.15,000 each respectively. The fixed direct cost of all the machine is Rs. 35,00,000 and fixed indirect cost of all the machine is Rs. 8,00,000. Power consumption is 100 units per month @ Rs.4.50/unit and consumables/year is Rs.10000. Capacity utilization is 75%.

(or)

(b) (i) Estimate the cloth required in meters for 3,500 hard case full cloth books having a trimmed size 210 x 289 mm with a spine thickness of 14 mm. Cloth is available in rolls of 80 cm width and 30 meter length. (8)

(ii) List out the different methods adopted to calculate the depreciation cost of the machine every year and also calculate the depreciation cost of the machine in all the methods whose capital cost is Rs.10 lakhs. (8)

15. (a) (i) Raja is borrowing Rs.9,50,000 to buy a folding machine. If he pays equal instalments for 20 years and 5 percent interest on the outstanding balance, what is the amount of instalment? What shall be the amount of instalment if quarterly payments are required to be made? (8)

(ii) Determine the future values utilizing a time preference rate of 9% (8)

- The future value of Rs.25, 000 invested now for a period of 4 years
- The future value at the end of eight years of an annual deposit of Rs.20, 000 each year

(or)

(b) (i) List out the limitations of break-even charts? (4)

(ii) The following information is obtained from ABC company for the year 2010 (12)

Sales : Rs. 20,000; Variable costs : Rs.10,000
Fixed costs : 6,000

- Find the P/V ratio, break-even point and margin of safety at this level
- Calculate the effect of:
 - 10% increase in fixed costs
 - 10% decrease in variable costs
 - 10% increase in selling price
 - 10% increase in selling price together with an increase of fixed overheads by Rs.1,200
 - 10% decrease in sales price accomplished by 10% decrease in variable costs