



**BOARD OF STUDIES**  
**THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA**  
**PROFESSIONAL COMPETENCE COURSE**  
**GROUP – II**

**Model Test Paper – BOS/PCC/ Cost Accounting and  
Financial Management – 2/2007**

*Time : 3 hours*

*Maximum Marks : 100*

**PAPER – 4 : COST ACCOUNTING AND FINANCIAL MANAGEMENT**

**PART – I : COST ACCOUNTING (50 marks)**

1. Give brief answers to any five of the following :
  - (a) If Rs 10 is spend on producing 10 units and Rs 15 for producing 15, what is the fixed cost per unit ?
  - (b) In a perpetual inventory system which classifies inventory into the A,B and C categories, which category of items should be checked most frequently and why?
  - (c) Why is a blanket overhead rate not suitable for product costing in a company which is semi automated?
  - (d) A company presently does not utilise its available capacity. In case of full capacity utilisation, the cost per unit shall,
    1. Increase
    2. Decrease
    3. Remain constant
    4. None of the above

- (e) An increase in contribution can be because of
1. An increase in fixed costs
  2. A increase in the selling price of the product
  3. A decrease in the variable cost per unit of the product
  4. Both 2 and 3.

(f) What do you understand by under absorbed overheads. (5×2=10 Marks)

2. ABC Ltd manufactures Picture Tubes and has a capacity of 1,000 Units per month. The following cost sheet has been prepared on ideal standards by the management accountant;

Description	Fixed Cost per unit(Rs)	Variable cost per unit(Rs)	Total cost per unit(Rs)
Direct material		2,000	2,000
Fixed overheads	1,000		1,000
Variable Overheads		1,000	1,000
Total cost			4,000
Standard selling price			5,000

Details of direct material to be used is as under;

*Bill of Material*

Description	Standard quantity per unit of Picture Tube (Rs)	Standard price per uni (Rs)	Total cost (Rs)
Glass shell	01	1,000	1,000
Phosphor	100 grams	5 per gram	500
Laquor	50 grams	5 per gram	250
Electron guns	02	125	250
Total cost per picture tube			2,000

During a particular month, the actual usage of Glass Shells and Electron guns was upto the standards. However there was a 20% extra usage accounted for both Phosphor and Laquor. The actual purchase price of these two raw material did not vary from the standards established. However, the price paid for procuring Glass Shell and Electron guns was Rs 1,200 and Rs 150 respectively. The actual production in the concerned month was 800 units of Picture Tubes. There was no deviation in the fixed and variable overheads from the standards established. You are required to compute the following;

- (a) Production volume variance.

- (b) Usage and purchase price variance of all of the concerned direct material.
- (c) Profit made by the company in the relevant month with an actual selling price of Rs 6,000 per Picture Tube. (15 Marks)
3. (a) From the following particulars with respect to a particular item of material of a manufacturing company, calculate the best quantity to order:

Ordering Quantities (tons)	Price per Ton
Less than 250	Rs.6.00
250 but less than 800	5.90
800 but less than 2,000	5.80
2,000 but less than 4,000	5.70
4,000 and above	5.60

The annual demand for the material is 4,000 tonnes.

Stock holding costs are 20% of material cost p. a.

The delivery cost per order is Rs.6. (8 Marks)

- (b) The following particulars for the first week of September 2003 relate to X and Y, two workers employed in a factory:

	X	Y
(a) Job completed (units)	3,600	4,200
(b) Out of above, output rejected and unsaleable	540	420
(c) Time allowed	12 minutes per dozen	3 hours for 200 units
(d) Basic wage rate per hour	Rs.5	Rs.6
(e) Hours worked	45	50

The normal working hours per week are fixed at 42 hours. Bonus is paid @  $\frac{2}{3}$  of the basic wage rate for gross time worked and gross output produced without deduction of rejected output. The rate of overtime for first 4 hours is paid at time plus  $\frac{1}{3}$  and next 4 hours is paid at time plus  $\frac{1}{2}$ .

From the above data, calculate for each employee:

- (a) Number of bonus hours earned and amount of bonus earned,
- (b) Total wages earned. (8 Marks)
4. Answer any **three** of the following;
- (a) Distinguish between budget and budgetary control
- (b) Distinguish between functional and master budgets.
- (c) Differentiate between Marginal and Direct costing.
- (d) Differentiate between Profit centre and Investment centre. (3×3=9 Marks)

**PART – II : FINANCIAL MANAGEMENT**

*(Answer all questions)*

5. Answer any five of the following, supporting the same with reasoning/working notes:
- (a) The trade terms "2/15, net 30" indicate that a 2% discount is offered if payment is made within 30 days. Is the statement true or false?
  - (b) The estimated benefits from a project are expressed as cash flows instead of income flows because it is simpler to calculate cash flows than income flows. Is the statement true or false?
  - (c) Beta Company's shares have a beta of 0.90, while Alpha Company's shares have a beta of 1.80. The expected return on the market is 10 percent, and the risk-free rate is 6 percent. According to the capital-asset pricing model (CAPM) and making use of the information given, calculate the required return on Beta and Alpha Companies' shares.
  - (d) PL Forgings Limited has an 8 percent return on total assets of Rs.3,00,000 and a net profit margin of 5 percent. What are its sales?
  - (e) Best of Luck Company's debt-to-total assets (D/TA) ratio is 0.4. What is its debt-to-equity (D/E) ratio?
  - (f) An EBIT-EPS indifference analysis chart is used for determining the impact of a change in sales on EBIT. Is the statement true or false? *(5×2=10 Marks)*
6. A firm has sales of Rs. 75,00,000; variable cost of Rs. 42,00,000 and fixed cost of Rs. 6,00,000. It has a debt of Rs. 45,00,000 at 9% and equity of Rs. 55,00,000.
- (i) What is the firm's ROI?
  - (ii) Does it have favourable financial leverage?
  - (iii) If the firm belongs to an industry whose asset turnover is 3, does it have a high or low asset leverage?
  - (iv) What are the operating, financial and combined leverages of the firm?
  - (v) If the sales drop to Rs. 50,00,000, what will be the new EBIT?
  - (vi) At what level the EBT of the firm will be equal to zero? *(15 Marks)*
7. (a) Xansa Ltd. has the following book-value capital structure as on March 31, 2006.

	Rs.
Equity share capital (2,00,000 shares)	40,00,000
11.5% preference shares	10,00,000
10% debentures	30,00,000
	<u>80,00,000</u>

The equity share of the company sells for Rs.20. It is expected that the company will pay next year a dividend of Rs.2 per equity share, which is expected to grow at 5% p.a. forever. Assume a 35% corporate tax rate.

Required:

- (i) Compute weighted average cost of capital (WACC) of the company based on the existing capital structure.
- (ii) Compute the new WACC, if the company raises an additional Rs.20 lakhs debt by issuing 12% debentures. This would result in increasing the expected equity dividend to Rs.2.40 and leave the growth rate unchanged, but the price of equity share will fall to Rs. 16 per share.
- (iii) Comment on the use of weights in the computation of weighted average cost of capital.

(b) The cash flows of two mutually exclusive Projects are as under:

	t <sub>0</sub>	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>
Project 'A' (Rs.)	(40,000)	13,000	8,000	14,000	12,000	11,000	15,000
Project 'B' (Rs.)	(20,000)	7,000	13,000	12,000	-	-	-

Required:

- (i) Estimate the net present value (NPV) of the Project 'A' and 'B' using 15% as the hurdle rate.
- (ii) Estimate the internal rate of return (IRR) of the Project 'A' and 'B'.
- (iii) Why there is a conflict in the project choice by using NPV and IRR criterion?
- (iv) Which criteria you will use in such a situation? Estimate the value at that criterion. Make a project choice.

The present value interest factor values at different rates of discount are as under:

	t <sub>0</sub>	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>
0.15	1.00	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323
0.18	1.00	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704
0.20	1.00	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349
0.24	1.00	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751
0.26	1.00	0.7937	0.6299	0.4999	0.3968	0.3149	0.2499

(9+ 7=16 Marks)

8. Write short notes on any three of the following:

- (a) Functions of a Chief Financial Officer
- (b) William J. Baumal versus Miller-Orr Cash Management Model
- (c) Bridge Finance
- (d) Funds Flow Statement versus Cash Flow Statement.

(3×3=9 Marks)