

## **Paper – 8: Cost Accounting & Financial Management**

## PTP\_Intermediate\_Syllabus 2012\_Dec 2015\_Set 2

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The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	<b>Learning objectives</b>	<b>Verbs used</b>	<b>Definition</b>
<b>LEVEL B</b>	<b>KNOWLEDGE</b>  What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	<b>COMPREHENSION</b>  What you are expected to understand	Describe	Communicate the key features of
		Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identify	Recognize, establish or select after consideration
	<b>APPLICATION</b>  How you are expected to apply your knowledge	Illustrate	Use an example to describe or explain something
		Apply	Put to practical use
		Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
	<b>ANALYSIS</b>  How you are expected to analyse the detail of what you have learned	Solve	Find an answer to
		Tabulate	Arrange in a table
		Analyse	Examine in detail the structure of
		Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
Construct		Build up or compile	
	Prioritise	Place in order of priority or sequence for action	
	Produce	Create or bring into existence	

**Paper- 8: Cost Accounting & Financial Management**

Full Marks: 100

Time Allowed: 3 Hours

This paper contains 3 questions. All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

1. Answer all questions: [2×10= 20]

- (i) Standard time is 60 hours and guaranteed time rate is ₹ 50 per hour. Under Rowan Plan, what is the amount of wages, if job is completed in 48 hours?
- (ii) T Ltd. uses pre-determined overhead rate of ₹ 15 per labour hour. The actual labour hours are 5750 and the actual overhead cost is ₹ 85,000. Calculate over/under absorption of overhead.
- (iii) A company buys in lots of 6,250 units, which is a 3 months supply. The cost/unit is ₹ 2.40. Each order costs ₹ 45 and the inventory carrying cost is 15% of the average inventory value. Calculate the EOQ.

(iv) For a department, the standard Overhead rate is ₹2.50 per hour and the overhead allowances are as follows:

Activity Levels (hours)	Budgeted overhead allowances (₹)
6,000	20,000
14,000	36,000
22,000	52,000

Calculate the fixed cost.

(v) A concern producing a single product estimates the following expenses for a production period.

	Figures ₹
Direct Material	50,000
Direct Labour	50,000
Direct Expenses	5,000
Overhead Expenses	2,10,000

What will be the overhead recovery rate based on prime cost?

(vi) How should packing costs be treated in Cost Accounts?

(vii) A firm has sales of ₹75,00,000 variable cost of ₹42,00,000 and fixed cost of ₹6,00,000. It has a debt of ₹45,00,000 at 9% interest and equity of ₹55,00,000. At what level of sales, the EBIT of the firm will be equal to zero?

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- (viii) GEMINI LTD. has total assets of ₹60 crore and a Debt/equity ratio of 0.5. Its sales are ₹27 crore and it has total fixed cost of ₹7 crore. If the company's EBIT is ₹6 crore, its tax rate is 40% and the interest rate on debt is 12%, the ROE of GEMINI LTD. would be how much?
- (ix) What will be the effect on NPV of a one year project if fixed costs are increased from ₹200 to ₹300. When the firm is profit making, pays tax @ 35% and has 12% cost of capital?
- (x) State the basic propositions of the MM Approach.

2. (Answer any three questions)

[3×16=48]

(a)

- (i) From the records of an oil distributing company, the following summarized information is available for the month of March 2015:

Sales for the month : ₹ 19,25,000

Opening Stock as on 01.03.2015: 1,25,000 liters @ ₹ 6.50/litre.

Purchases (including freight and insurance):

March 5	1,50,000 litres @ ₹ 7.10/litre
March 27	1,00,000 litres @ ₹ 7.00/litre
Closing Stock as on 31.03.2015:	1,30,000 litres
General Administration expenses for the month:	₹ 45,000

On the basis of the above information, work out the following using FIFO and LIFO methods of inventory valuation assuming pricing of issues is being done at the end of the month after all receipts during the month:

- I. Value of closing stock as on 31.03.2015
  - II. Cost of goods sold during March 2015
  - III. Profit or loss for March 2015
- [3+4+2=9]

- (ii) A firm has purchased a plant to manufacture a new product. The cost data are given below:

Estimated annual sales	36,000 units
Material	₹ 4 per unit
Direct labour	₹ 0.6 per unit
Overheads – Manufacturing	₹ 24,000 p.a.
Administrative expenses	₹ 28,800 p.a.
Selling Expenses	15% of sale

Calculate the selling price if profit per unit is ₹1.50. Assume whatever is produced is sold. [3]

- (iii) What is imputed cost? Give an example of imputed cost. Explain its position in a product cost sheet and in the decision making evaluation process. [2+1+1]

2. (b)

- (i) In a manufacturing concern 20 workmen work in a group. The concern follows a group incentive bonus system whereby each workman belonging to the group is paid a bonus on the excess output over the hourly production standard of 250 pieces, in addition to his normal wages at hourly rate. The excess of production over the standard is expressed as a percentage and two-thirds of this percentage is considered to be the share of the workman and is applied on the notional hourly rate of ₹6.00 (considered only for purpose of computation of bonus). The output data for a week are stated below:

Days	Man hours worked	Output (in pieces)
Monday	160	48,000
Tuesday	172	53,000
Wednesday	164	40,000
Thursday	168	52,000
Friday	160	46,000
Saturday	160	42,000
	984	2,81,000

You are required to:

- (I) Work out the amount of bonus for the week and the average rate at which each workman is to be paid the same.  
 (II) Compute the total wages including bonus payable to Ram Jadav who worked for 48 hours at an hourly rate of ₹ 2.50 and to Francis Williams who worked for 52 hours at an hourly rate of ₹ 3.00. [3+2+2=7]
- (ii) A machine shop has 8 identical Drilling Machines manned by 6 operators. The machines cannot be worked without an operator wholly engaged on it. The original cost of all these 8 machines works out to ₹8 lakhs. These particulars are furnished for a six month period :-

Normal available hours per month	208
Absenteeism (without pay) - hours	18
Leave (with pay) -- hours	20
Normal idle time unavoidable - hours	10
Average rate of wages per day of 8 hours	₹20
Production Bonus estimated	15% on wages
Value of Power consumed	₹8,050
Supervision and Indirect Labour	₹3,300
Lighting and Electricity	₹1,200

These particulars are for a year:

Repairs and maintenance including consumables 3% on value of machines.

Insurance ₹ 40,000.

Depreciation 10% on original cost.

Other sundry works expenses ₹12,000.

General Management expenses allocated ₹54,530.

You are required to work out a comprehensive machine hour rate for the Machine Shop. [9]

2. (c)

- (i) List out the causes of labour turnover. [4]

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(ii) From the following details of stores receipts and issues of material, "EXE" in a manufacturing unit, prepare the Store Ledger using Weighted Average Method of valuing the issues.

- |   |  |
|---|--|
| Nov. 1. Opening stock 2,000 units @ ₹ 5.00 each<br>3. Issued 1,500 units to production<br>4. Received 4,500 units @ ₹ 6.00 each<br>8. Issued 1,600 units to production<br>9. Returned to stores 100 units by Production Department (from the issues of Nov.3)<br>16. Received 2,400 units @ ₹ 6.50 each | 19. Returned to supplier 200 units out of the quantity received on Nov. 4<br>20. Received 1,000 units @ ₹ 7.00 each<br>24. Issued to production 2,100 units<br>27. Received 1,200 units @ ₹ 7.50 each<br>29. Issued to production, 2,800 units.<br>(Use rates up to two decimal places). |
|---|--|

[8]

(iii) List the factors that should be disclosed in the cost statements as per CAS-3.

[4]

2. (d)

(i) A product passes through two processes, machining and finishing. Each is a cost centre. 1000 kgs of raw material (i.e. 100 pieces) are machined in a production period. 5% of the input in kgs is the normal machining loss in the form of machining waste, but 100 pieces come out of the process. There is a further loss of 4% in the Finishing process from the weight of each piece that was sent in. 10% of the number of pieces were finally scrapped and sold at ₹ 2.50 per piece. Some of the expenses incurred are listed below:

- 1) For every 100 pieces of input, the machining dept. uses a special cleaning material pack which is purchased at a base price of ₹10,000; VAT 14.5%. The additional cost of transporting it to the shop floor is ₹ 1,200 per pack.
- 2) There are two special computers used for designing specifications in the machine shop. A computer professional who is on a monthly salary of ₹ 30,000 attends to the repairs and maintenance of this machine and 19 other machines in the company. The company feels it is not economical to establish a procedure to time his work on various machines since log of computer down-time is not maintained.
- 3) The Finishing Department hires special equipment at ₹25,000 per production period.
- 4) Since the Finishing Dept. did not finish on time, 15,000 was payable to the customer as penalty.

Present a statement showing the direct expenses of each department— Machining and Finishing. What will be the components of direct expenses per piece and per kg of the final product relating to the given information? Present your answer in line with the disclosure requirement as per CAS 10. [8]

(ii) A plant that manufactures Tiffin boxes has an installed capacity of 1,20,000 units per year distributed evenly over each calendar month. The following is the cost structure of the product:

Raw Material	₹20 per unit
Direct Labour	₹12 per unit
Direct Expenses	₹2 per unit
Variable overheads	₹16 per unit
Fixed overhead	₹3,00,000 per annum (i.e. ₹1,50,000 per half year)

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Semi-variable overheads: ₹ 7500 per month up to 50% capacity and an additional ₹2500 per month for every additional 25% capacity utilization or part thereof.

The plant will operate at 50% capacity during the first 6 months of the calendar year 2014 and at 100% capacity in the remaining months.

The selling price for the period from 1st January to 30th June was fixed at ₹ 70 per unit. The firm wishes to revise the selling price for the next half year, which should be fixed effective 1st July to achieve a total profit of ₹9,00,000 during 2014.

You may assume that whatever is produced is sold and that the market is likely to absorb the production after the revision in price.

You are required to prepare a statement showing the element wise total cost and profit for each half year and the revised selling price in the second half of the year to achieve the overall annual profit of ₹9,00,000 in 2014. Compute the semi-variable and fixed cost per unit for each of the half yearly periods. [8]

3. (Answer any two questions)

[2×16=32]

(a)

(i) C Ltd. is considering investing in a project. The expected original investment in the project will be ₹ 2,00,000, the life of project will be 5 year with no salvage value. The expected net cash inflows after depreciation but before tax during the life of the project will be as following:

Year	1	2	3	4	5
₹	85,000	1,00,000	80,000	80,000	40,000

The project will be depreciated at the rate of 20% on original cost. The company is subjected to 30% tax rate.

Required:

(I) Calculate payback period and average rate of return (ARR)

(II) Calculate net present value and net present value index, if cost of capital is 10%.

(III) Calculate internal rate of return.

Note: The P. V. factors are:

Year	P. V. at 10%	P.V.at 37%	P. V. at 38%	P. V. at 40%
1	0.909	0.730	0.725	0.714
2	0.826	0.533	0.525	0.510
3	0.751	0.389	0.381	0.364
4	0.683	0.284	0.276	0.260
5	0.621	0.207	0.200	0.186

[2+2+3+1+4]

(ii) Explain the term Desirability factor

[4]

3. (b)

(i) Calculate the degree of operating leverage, degree of financial leverage and the degree of combined leverage for the following firms and interpret the results:

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	P	Q	R
Output (units)	2,50,000	1,25,000	7,50,000
Fixed Cost (₹)	5,00,000	2,50,000	10,00,000
Unit Variable Cost (₹)	5	2	7.50
Unit Selling Price (₹)	7.50	7	10.0
Interest Expense (₹)	75,000	25,000	—

[3+3+3 = 9]

- (ii) The turnover of X Ltd. is ₹72 lakhs of which 80% is on credit. Debtors are allowed one month to clear off the dues. A factor is willing to advance 90% of the bills raised on credit for a fee of 2% a month plus a commission of 4% on the total amount of debts. X Ltd. as result of this arrangement is likely to save ₹25,920 annually in management costs and avoid bad debts at 1% on the credit sales.

A Nationalised bank has come forward to make an advance equal to 90% of the debts at an interest rate of 18% p.a. However, its processing fee will be at 2% on the debts.

Would you accept factoring or the offer from the bank?

[7]

### 3. (c)

- (i) Classify the following independent items of cash flows under AS-3

- (I) Cash receipts from future contracts held for trading purpose.
- (II) Cash receipts from repayment of advances to third parties other than a financial enterprise.
- (III) Cash interest received from by a financial enterprise.
- (IV) Cash received from disposal of fixed assets.
- (V) Cash receipts from interests in joint venture.
- (VI) Dividends paid by a non- financial enterprise.
- (VII) Cash payments on account of acquisition of a subsidiary.
- (VIII) Cash flows arising from taxes on income, not specifically identifiable.

[4]

- (ii) Write a short note on Foreign Currency Convertible Bonds (FCCBs)

[4]

- (iii) The beta co- efficient of a security 'X' is 1.4. The risk free rate of return is 10% and the required rate of return is 14% on the market portfolio. If the dividend expected during the coming year is ₹3.50 per share and the growth rate of dividend and earning is 8%, at what price should the security 'X' be sold, based on the CAPM?

[5]

- (iv) List out the features of venture Capital.

[3]