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CA PCC - Costing - June 2009 - Question Paper

Roll No.....

Total No. of Questions—8]

[Total No. of Printed Pages—16

Time Allowed—3 Hours

Maximum Marks—100

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Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi medium. If a candidate who has not opted for Hindi medium, answers in Hindi, his answers in Hindi will not be valued.

All questions are compulsory.

Working notes should form part of the answer.

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1. Answer any five of the following :

5×2=10

(i) Two workmen, A and B, produce the same product using the same material. A is paid bonus according to Halsey plan, while B is paid bonus according to Rowan plan. The time allowed to manufacture the product is 100 hours. A has taken 60 hours and B has taken 80 hours to complete the product. The normal hourly rate of wages of workman A is Rs. 24 per hour. The total earnings of both the workers are same. Calculate normal hourly rate of wages of workman B.

(ii) Distinguish between product cost and period cost.

(iii) A lorry starts with a load of 24 tonnes of goods from station A. It unloads 10 tonnes at station B and rest of goods at station C. It reaches back directly to station A after getting reloaded with 18 tonnes of goods at station C. The distance between A to B, B to C and then from C to A are 270 kms, 150 kms and 325 kms respectively. Compute 'Absolute tonnes kms' and 'Commercial tonnes-kms'.

(iv) Following details relating to product X during the month of April, 2009 are available :

Standard cost per unit of X :

Materials : 50 kg @ Rs. 40/kg

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Actual production : 100 units

Actual material cost : Rs. 42/kg

Material price variance : Rs. 9,800 (Adverse)

Material usage variance : Rs. 4,000 (Favourable).

Calculate the actual quantity of material used during the month April, 2009.

(v) Discuss the components of budgetary control system.

(vi) Following information is available for the first and second quarter of the year 2008-09 of ABC Limited :

	Production (in units)	Semi-variable cost (Rs.)
Quarter I	36,000	2,80,000
Quarter II	42,000	3,10,000

You are required to segregate the semi-variable cost and calculate :

(a) Variable cost per unit; and

(b) Total fixed cost.

2. Following is the sales budget for the first six months of the year 2009 in respect of PQR Ltd. : 6+9
=15

Month	: Jan.	Feb.	March	April	May	June
Sales (units)	: 10,000	12,000	14,000	15,000	15,000	16,000

Finished goods inventory at the end of each month is expected to be 20% of budgeted sales quantity for the following month. Finished goods inventory was 2,700 units on January 1, 2009. There would be no work-in-progress at the end of any month.

Each unit of finished product requires two types of materials as detailed below :

Material X : 4 kgs @ Rs. 10/kg

Material Y : 6 kgs @ Rs. 15/kg

Material on hand on January 1, 2009 was 19,000 kgs of material X and 29,000 kgs of material Y. Monthly closing stock of material is budgeted to be equal to half of the requirements of next month's production.

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Budgeted direct labour hour per unit of finished product is $\frac{3}{4}$ hour.

Budgeted direct labour cost for the first quarter of the year 2009 is Rs. 10,89,000.

Actual data for the quarter one, ended on March 31, 2009 is as under :

Actual production quantity : 40,000 units

Direct material cost

(Purchase cost based on materials actually issued to production)

Material X : 1,65,000 kgs @ Rs. 10.20/kg

Material Y : 2,38,000 kgs @ Rs. 15.10/kg

Actual direct labour hours worked : 32,000 hours

Actual direct labour cost : Rs. 13,12,000

Required :

(a) Prepare the following budgets :

(i) Monthly production quantity budget for the quarter one.

(ii) Monthly raw material consumption quantity budget from January, 2009 to April, 2009.

(iii) Materials purchase quantity budget for the quarter one.

(b) Compute the following variances :

(i) Material cost variance

(ii) Material price variance

(iii) Material usage variance

(iv) Direct labour cost variance

(v) Direct labour rate variance

(vi) Direct labour efficiency variance.

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3. (a) A manufacturing company has disclosed a net loss of Rs. 2,13,000 as per their cost accounting records for the year ended March 31, 2009. However, their financial accounting records disclosed a net loss of Rs. 2,58,000 for the same period. A scrutiny of data of both the sets of books of accounts revealed the following information :

	Rs.	
(i) Factory overheads underabsorbed	5,000	+
(ii) Administration overheads overabsorbed	3,000	-
(iii) Depreciation charged in financial accounts	70,000	-
(iv) Depreciation charged in cost accounts	80,000	-
(v) Interest on investments not included in cost accounts	20,000	-
(vi) Income-tax provided in financial accounts	65,000	-
(vii) Transfer fees (credit in financial accounts)	2,000	+
(viii) Preliminary expenses written off	3,000	-
(ix) Over-valuation of closing stock of finished goods in cost accounts	7,000	-

Prepare a Memorandum Reconciliation Account.

- (b) Describe briefly, how joint costs upto the point of separation may be apportioned amongst the joint products under the following methods :

- Average unit cost method
- Contribution margin method
- Market value at the point of separation
- Market value after further processing
- Net realizable value method.

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4. Answer any **three** of the following :

3×3=9

- (i) Discuss accounting treatment of spoilage and defectives in cost accounting.
- (ii) Discuss accounting treatment of idle capacity costs in cost accounting.
- (iii) A contract is estimated to be 80% complete in its first year of construction as certified. The contractee pays 75% of value of work certified, as and when certified and makes the final payment on the completion of contract. Following information is available for the first year :

	Rs.
Cost of work-in-progress uncertified	8,000
Profit transferred to Profit & Loss A/c at the end of year I on incomplete contract	60,000
Cost of work to date	88,000

Calculate the value of work-in-progress certified and amount of contract price.

- (iv) Product Z has a profit-volume ratio of 28%. Fixed operating costs directly attributable to product Z during the quarter II of the financial year 2009-10 will be Rs. 2,80,000.

Calculate the sales revenue required to achieve a quarterly profit of Rs. 70,000.

5. Answer any **five** of the following :

5×2=10

- (i) Write a short note on functions of Treasury department.
- (ii) Discuss the concept of American Depository Receipts. ck
- (iii) How is Debt service coverage ratio calculated ? What is its significance ?
- (iv) Discuss conflict in profit versus wealth maximisation objective. ck
- (v) Discuss the concept of Debt-Equity or EBIT-EPS indifference point, while determining the capital structure of a company.
- (vi) Discuss the benefits to the originator of Debt Securitisation.

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27000

88000

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6. Balance Sheets of RST Limited as on March 31, 2008 and March 31, 2009 are as under : 5+10
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Liabilities	31.3.2008 Rs.	31.3.2009 Rs.	Assets	31.3.2008 Rs.	31.3.2009 Rs.
Equity Share Capital (Rs. 10 face value per share)	10,00,000	12,00,000	Land & Building	6,00,000	7,00,000
General Reserve	3,50,000	2,00,000	Plant & Machinery	9,00,000	11,00,000
9% Preference Share Capital	3,00,000	5,00,000	Investments (Long-term)	2,50,000	2,50,000
Share Premium A/c	25,000	4,000	Stock	3,60,000	3,50,000
Profit & Loss A/c	2,00,000	3,00,000	Debtors	3,00,000	3,90,000
8% Debentures	3,00,000	1,00,000	Cash & Bank	1,00,000	95,000
Creditors	2,05,000	3,00,000	Prepaid Expenses	15,000	20,000
Bills Payable	45,000	81,000	Advance Tax Payment	80,000	1,05,000
Provision for Tax	70,000	1,00,000	Preliminary Expenses	40,000	35,000
Proposed Dividend	1,50,000	2,60,000			
	<u>26,45,000</u>	<u>30,45,000</u>		<u>26,45,000</u>	<u>30,45,000</u>

Additional information :

- (i) Depreciation charged on building and plant and machinery during the year 2008-09 were Rs. 50,000 and Rs. 1,20,000 respectively.
- (ii) During the year an old machine costing Rs. 1,50,000 was sold for Rs. 32,000. Its written down value was Rs. 40,000 on date of sale.
- (iii) During the year, income tax for the year 2007-08 was assessed at Rs. 76,000. A cheque of Rs. 4,000 was received alongwith the assessment order towards refund of income tax paid in excess, by way of advance tax in earlier years.
- (iv) Proposed dividend for 2007-08 was paid during the year 2008-09.
- (v) 9% Preference shares of Rs. 3,00,000, which were due for redemption, were redeemed during the year 2008-09 at a premium of 5%, out of the proceeds of fresh issue of 9% Preference shares.
- (vi) Bonus shares were issued to the existing equity shareholders at the rate of one share for every five shares held on 31.3.2008 out of general reserves.
- (vii) Debentures were redeemed at the beginning of the year at a premium of 3%.

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(viii) Interim dividend paid during the year 2008-09 was Rs. 50,000.

Required :

- (a) Schedule of Changes in Working Capital; and
- (b) Fund Flow Statement for the year ended March 31, 2009.

7. (a) The capital structure of MNP Ltd. is as under :

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9% Debentures	Rs. 2,75,000
11% Preference shares	Rs. 2,25,000
Equity shares (face value : Rs. 10 per share)	Rs. 5,00,000
	<u>Rs. 10,00,000</u>

Additional information :

- (i) Rs. 100 per debenture redeemable at par has 2% floatation cost and 10 years of maturity. The market price per debenture is Rs. 105.
- (ii) Rs. 100 per preference share redeemable at par has 3% floatation cost and 10 years of maturity. The market price per preference share is Rs. 106.
- (iii) Equity share has Rs. 4 floatation cost and market price per share of Rs. 24. The next year expected dividend is Rs. 2 per share with annual growth of 5%. The firm has a practice of paying all earnings in the form of dividends.
- (iv) Corporate Income-tax rate is 35%.

Required :

Calculate Weighted Average Cost of Capital (WACC) using market value weights.

- (b) A company is required to choose between two machines A and B. The two machines are designed differently, but have identical capacity and do exactly the same job. Machine A costs Rs. 6,00,000 and will last for 3 years. It costs Rs. 1,20,000 per year to run.

Machine B is an 'economy' model costing Rs. 4,00,000 but will last only for two years, and cost Rs. 1,80,000 per year to run. These are real cash flows. The costs are forecasted in Rupees of constant purchasing power. Opportunity cost of capital is 10%. Which machine company should buy ? Ignore tax.

$PVIF_{0.10, 1} = 0.9091$, $PVIF_{0.10, 2} = 0.8264$, $PVIF_{0.10, 3} = 0.7513$.

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8. Answer any **three** of the following :

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- (i) A firm maintains a separate account for cash disbursement. Total disbursements are Rs. 2,62,500 per month. Administrative and transaction cost of transferring cash to disbursement account is Rs. 25 per transfer. Marketable securities yield is 7.5% per annum.

Determine the optimum cash balance according to William J Baumol model.

- (ii) A firm has a total sales of Rs. 12,00,000 and its average collection period is 90 days. The past experience indicates that bad debt losses are 1.5% on sales. The expenditure incurred by the firm in administering receivable collection efforts are Rs. 50,000. A factor is prepared to buy the firm's receivables by charging 2% commission. The factor will pay advance on receivables to the firm at an interest rate of 16% p.a. after withholding 10% as reserve. Calculate effective cost of factoring to the firm. Assume 360 days in a year.

- (iii) Explain the concept of discounted payback period.

- (iv) Discuss the composition of Return on Equity (ROE) using the DuPont model.

$$R = 3000$$

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