COST & FM – MAY 2017 - QUESTION PAPER

Q.1 Answer the following: **[4 × 5 = 20 Marks]**

(a) RST Company Ltd. has computed labour turnover rates for the quarter ended 31st March, 2017 as 20%, 10% and 5% under flux method, replacement method and separation method respectively. If the number of workers replaced during that quarter is 50, find out (i) Workers recruited and joined(ii) Workers left and discharged and (iii) Average number of workers on roll.

(b) AB Ltd. has furnished the following information:

	Budgeted	**Actual July 2016**
Number of working days	25	27
Production (in units)	20,000	22,000
Fixed Overheads	₹ 30,000	₹ 31,000

Budgeted fixed overhead rate is ₹ 1.00 per hour. In July 2016, the actual hours worked were 31,500. In relation to fixed overheads.
Calculate:
(i) Efficiency Variance
(ii) Capacity Variance
(iii) Calendar Variance
(iv) Volume Variance

(c) You are given the following information of 5 firms of the same industry:

Name of the Firm	Change in Revenue	Change in Operating Income	Change in Earning per share
M	28%	26%	32%
N	27%	34%	26%
P	25%	38%	23%
Q	23%	43%	27%
R	25%	40%	28%

You are required to calculate:
(i) Degree of operating leverage and
(ii) Degree of combined leverage for all firms.

(d) VK Co. Ltd. has total cash disbursement amounting ₹ 22,50,000 in the year 2017 and maintains a separate account for cash disbursements. Company has an administrative and transaction cost on transferring cash to disbursement account ₹ 15 per transfer. The yield rate on marketable securities is 12% per annum. You are required to determine optimum cash balance according to William J. Baumol Model.

Q.2(a) KMR Ltd. produces product AY, which passes through three processes 'XM' and 'YM' and 'ZM'. The output of process 'XM' and 'YM' is transferred to next process at cost plus 20 percent each' on. transfer price and the output of process 'ZM' is transferred to finished stock at a profit of 25 percent on transfer price. The following information are available in respect of the year ending 31st March, 2017:

	Process XM (₹)	**Process YM (₹)**	**Process ZM (₹)**	**Finished Stock (₹)**
Opening Stock	30,000	54,000	80,000	90,000
Material	1,60,000	1,30,000	1,00,000	-
Wages	2,50,000	2,16,000	1,84,000	-
Manufacturing Overheads	1,92,000	1,44,000	1,33,000	-

Closing Stock Inter Process Profit Included in Opening Stock	40,000 Nil	64,000 8,000	78,000 20,000	1,00,000 40,000

Stock in processes is valued at prime cost. The finished stock is valued at the price at which it is received from process 'ZM', Sales of the finished stock during the period was ₹ 28,00,000. You are required to prepare:
(i) All process accounts and
(ii) Finished stock account showing profit element at each stage.

[8 Marks]

(b) PQ Limited wants to expand its business and has applied for a loan from a commercial bank for its growing financial requirements.
The records of the company reveals that the company sells goods in the domestic market at a gross profit of 25% not counting depreciation as part of the cost of goods sold.
The following additional information is also available for you:

	₹
Sales-Home at one month's credit	1,20,00,000
Sales Export at three months' credit (sale price 10% below home price)	54,00,000
Material used (suppliers extends two months' credit)	45,00,000
Wages paid ½ month in arrear	36,00,000
Manufacturing Expenses (Cash) paid (one month in arrear)	54,00,000
Adm. Expenses paid one month in arrear	12,00,000
Income tax payable in four installments of which one falls in the next financial year	15,00,000

The company keeps one month's stock of each of raw materials and finished goods and believes in keeping ₹10,00,000 available to it including the overdraft limit of ₹ 5,00,000 not yet utilized by the company. Assume a 15% margin for contingencies. Ignore the work-in- progress .
You are required to ascertain the requirement of the working capital of the company.

[8 Marks]

Q.3
(a) The following information was obtained from the records of a manufacturing unit:

	₹	₹
Sales 80,000 units @ Rs.25		20,00,000
Material consumed	8,00,000	
Variable Overheads	2,00,000	
Labour Charges	4,00,000	
Fixed Overheads	3,60,000	17,60,000
Net Profit		2,40,000

Calculate:

(i) The number of units by selling which the company will neither lose or nor gain anything.
(ii) The sales needed to earn a profit of 20% on sales.
(iii) The extra units which should be sold to obtain the present profit if it is proposed to reduce the selling price by 20% and 25%.
(iv) The selling price to be fixed to bring down its Break-even Point to 10,000 units under present conditions.

[8 Marks]

(b) PNR Limited and PXR Limited are identical in every respect except capital structure. PNR Limited does not employ debts in its capital structure whereas PXR Limited employees 12% Debentures amounting to ₹ 20,00,000. The following additional information are given to you:
(i) Income tax rate is 30%

(ii) EBIT is ₹ 5,00,000.
(iii) The equity capitalization rate of PNR Limited is 20% and
(iv) All assumptions of Modigliani-Miller Approach are met.

Calculate:
(i) Value of both the companies,
(ii) Weighted average cost of capital for both the companies.

[8 Marks]

Q.4(a) The following information have been extracted from the cost records of JKL Manufacturing company Ltd:

Stores:	₹
Opening Stock	90,000
Purchase	4,80,000
Transfer from WIP	2,40,000
Issue to WIP	4,80,000
Issue of repairs	60,000
Deficiency found in stock	18,000
Work-in-progress:	
Opening Balance	1,80,000
Direct wages applied	1,80,000
Overheads charged	7,20,000
Closing Balance	1,20,000
Finished Production:	
Entire production is sold at a profit of 10% on-Cost from work-in-progress	
Wages Paid	2,10,000
Overheads Incurred	7,50,000

Prepare stores Ledger control A/c., Work-in-Progress Control A/c., Overheads Control A/c. and Costing Profit & Loss A/c.

[8 Marks]

(b) Following information relate to a concern:

Debtors Velocity	3 month
Creditors Velocity	2 month
Stock Turnover Ratio	1.5
Gross Profit Ratio	25%
Bills Receivables	25,000
Bill Payable	10,000
Gross Profit	4,00,000
Fixed Assets to turnover Ratio	4

Closing stock of the period is ₹ 10,000 above the opening stock.
Find out:
(i) Sales and cost of goods sold
(ii) Sundry Debtors
(iii) Sundry Creditors
(iv) Closing Stock
(v) Fixed Assets

[8 Marks]

Q.5 **[4 × 4 = 16 Marks]**

(a) Explain 'Cost Unit' and 'Cost Centre'.

(b) What are the essential factors for installing a cost accounting system? Explain.

(c) Distinguish between 'funds Flow' and 'Cash Flow'.

(d) Distinguish between 'Profit Maximization' and 'Wealth Maximization' objective of a firm.

Q.6(a) You are given the following data of a manufacturing concern:

	₹
Variable Expenses (at 50% capacity):	
Materials	48,00,000
Labour	51,20,000
Others	7,60,000
Semi-variable expenses (at 50% capacity):	
Maintenance arid Repairs	5,00,000
Indirect Labour	19,80,000
Sales Dept. Salaries	5,80,000
Sundry Administrative Expenses	5,20,000
Fixed Expenses:	
Wages & Salaries	16,80,000
Rent, Rates and Taxes	11,20,000
Depreciation	14,00,000
Sundry Administrative Exp.	17,80,000

The fixed expenses remain constant for all levels of production. Semi – variable expenses remain constant between 45% and 65% of capacity whereas it increases by 10% capacity and by 20% between 80% and 100% capacity

Sales at various levels are as under:

Capacity	**Sales (₹)**
75%	2,40,00,000
100%	3,20,00,000

Prepare flexible budget at 75% and 100% capacity.

[8 Marks]

(b) X Limited is considering to purchase of new plant worth ₹ 80,00,000. The expected net cash flows after taxes and before depreciation are as follows:

Year	**Net Cash Flows (₹)**
1	14,00,000
2	14,00,000
3	14,00,000
4	14,00,000
5	14,00,000
6	16,00,000
7	20,00,000
8	30,00,000
9	20,00,000
10	8,00,000

The rate of cost of capital is 10%.

You are required to calculate:

(i) Pay-back period

(ii) Net present value at 10% discount factor

(iii) Profitability index at 10% discount factor.

(iv) Internal rate of return with the help of 10% and 15% discount factor

The following present value table is given for you:

Year	Present value of ₹ 1 at 10% discount rate	Present value of ₹ 1 at 15% discount rate
1	.909	.870
2	.826	.756
3	.751	.658
4	.683	.572
5	.621	.497
6	.564	.432
7	.513	.376
8	.467	.327
9	.424	.284
10	.386	.247

[8 Marks]

Q.7 Answer any four of the following: **[4 × 4 = 16 Marks]**

(a) Discuss briefly the principles to be followed while taking credit for profit in incomplete contract.

(b) State the difference between Cost Accounting and Management Accounting.

(c) Explain the meaning and advantages of factoring.

(d) Explain:

  (i) Time Value of Money

  (ii) A.B.C. Analysis

(e) Explain GDP and ADR.