Q. P. Code: 11441

Date: **Max Marks: 60**

Subject: Management Control Systems **Duration** : 3 Hours

Instructions:

1) Q1 is compulsory of 20 Marks

2) From remaining six questions attempt any four questions, each question carrying 10 Marks.

3) Make logical assumptions if required.

Q1) 20 Marks (Compulsory)

Part I (10 Marks)

PQR Limited Profit & Loss account for the year 2016-17 is given below:

	No's in Rs. Lakh
Sales	900
Variable Cost	(630)
Contribution	270
Fixed Cost	(72)
Depreciation	(54)
PBIT	144
Interest	(27)
PBT	117
Tax@ 30%	(35.1)
PAT	81.9

Company's balance sheet is as given below (Rs. Lakhs)

Equity	540	Fixed Assets	540
15% Debt	180	Net Working Capital	180
	720		720

Calculate ROE & ROCE for the company.

PQR limited wants to expand its operation. It would purchase fixed assets worth Rs.180Lakh & invest additional Rs.180 Lakh in working capital. Fixed assets are funded by equity & working capital by 15% debt. This expansion would increase sales by 20% & variable cost to sales ratio would reduce by 5%. Fixed Cost other than depreciation would go up by 5%. Depreciation is on Straight line method. Then calculate ROE & ROCE post expansion. Also calculate pre and post expansion total asset turnover.

Part II (10 Marks)

Division A of Ananya Limited manufactures product X, which is sold to Division B as a component of product Y. Product Y is sold to Division C, which uses it as a component of Product Z. Product Z is sold to customers outside of the Company.

I. Calculate the transfer price for Product X and Product Y as shown by Division A and Division B
II. Calculate the transfer cost for Product X and Product Y as shown by Division B and Division C
III. Calculate the minimum selling price for Product Z to outside customer.
IV. If due to outside competition if company can sell this product only at Rs.400 should they continue to manufacture this product? (10 Marks)

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Division	A	B	C
Particulars	Product X	Product Y	Product Z
Capacity (no's)	6000	5000	4000
Cost of Production			
Material Cost per unit Rs.	20	10	25
Processing Cost per unit Rs.	40	15	20
Annual Fixed Cost Rs.	240000	312000	360000
Investments			
Fixed Assets Rs	2000000	2400000	3000000
Targeted ROI %	10	12	14
Current Assets Rs	1600000	2400000	1800000
Targeted ROI %	14	12	10

Q2) a) ***10 Marks or b) and c) both of 5marks.***

The operating results of a manufacturing company for the current year are given below:

	In Rs lakhs
Sales (1000 units)	1200
Trade Discount	(60)
Net Sales	1140
Cost of Sales	(1040)
Material	*360*
Labour	*320*
Factory Overheads	*160*
Admin. Overheads	*80*
Selling & dist. Overheads	*120*
Profit	100

The following changes are anticipated during the next year:

a) Units sold to increase by 25%
b) Material Price to go up by 10%
c) Labour charge to increase by 15%
d) Factory overheads will go to 200 lacs and other fixed overheads will go up by 10%.

Profit target is Rs.130 lakhs

Based on above information calculate the selling price per unit for the next year?

Or

b) On investigation it was found that variable cost in XYZ Ltd is 80 per cent of the selling price. If the fixed expenses are Rs 10,000, calculate the break-even sales of the company. Another firm, IMN Company Ltd, having the same amount of fixed expenses, has its break-even point at a lower figure than that of XYZ Ltd. Comment on the causes.

c) Market Well Ltd manufactures filing cabinets. For the current year, the company expects to sell 4,000 cabinets involving a loss of Rs 2,00,000. Only 40 per cent of the plant's normal

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capacity is being utilised during the current year. The fixed costs for the year are Rs 10,00,000 and fully variable costs are 60 per cent of sales value.

You are required to 1. Calculate the break-even point; 2. Calculate the profit if the company operates at 70 per cent of its normal capacity; 3. Calculate the sales required to achieve a profit of Rs 6, 00,000; 4. Calculate the revised break-even point if the existing selling prices are decreased by 10 per cent, the total fixed and variable expenses remaining the same.

Q3) ***Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks***

a) XYZ has to divisions P&Q. Return on Investment for both divisions is 12%. Based on Details given below, analyze and comment on divisional performance.

Division	Sales	Investments	Profits
P	Rs.80 Cr	Rs.40 Cr	Rs.6 Cr
Q	Rs.192 Cr	Rs.64 Cr	Rs.9.6 Cr

b) For the following figures extracted from the books of Roy Ltd. Calculate the return on investment. Assume 30% provision for tax. (Figures in Rs.)

Fixed Asset	900
Current Asset	300
Investment in government securities	100
Sales	900
COGS	450
10% preference share capital	200
Equity share capital	300
Reserves & Surplus.	255
15% Debenture	100
Income from Investments	10

c) A factory is currently working at 60% capacity and produces 12000 units. At 70% capacity utilization raw material cost increases by 3% and selling price falls by 3%. At 90% capacity utilization raw material cost increases by 6% and selling price falls by 6%. At 60% capacity, Product costs Rs.180 & is sold at Rs.200 per unit. The unit cost of Rs.180 is made up as follows: Material Cost Rs.100, Labor Rs.30, Factory overheads Rs.30 (40% Fixed), Administrative overheads Rs.20 (50% Fixed). Estimate profits at all three levels of capacity utilization.

Q4) ***Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks***

a) From the following details calculate the sensitivity of the a) Project Cost b) Annual Cash flow & c) Cost of Capital. Which variable is most sensitive? Project Cost Rs.32Lakhs; Annual Cash Flow Rs. 10Lakhs; life of the project is 5 years; Cost of Capital 15%; The Annuity factor @ 15% for 5 Years is 3.352 and at 17% for 5 years is 3.2.

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b) Transfer Price for Manish Limited in on the basis of Cost plus return on investment in the division. The budget for division M is as follows (Rs. In Cr except variable cost)

Fixed Asset	3000
Net Current Asset	3000
Annual Fixed Cost for division	4800
Variable cost per unit in Rs.	10
Budgeted Volume	3000

If expected ROI is 30% then determine transfer price for division M.

c) Following Data relating to Grishma Ltd is given for year ending 31st March 2017:

Business Unit	Cash	Receivables	Inventories	Fixed Assets	Profit
A	80	160	320	480	200
B	120	120	200	320	100
C	80	200	240	160	90
D	40	80	80	320	54

The corporate cost of capital relating to money invested in receivables, cash & inventories is 6% after tax. The company's required rate of return for investment in Fixed Assets is 12% after taxes. Calculate ROI & EVA for all the business units & make comments based on your evaluation.

Q5) ***Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks***

a) Compare ROI and EVA as performance evaluation measures of investment centers.
b) Write a short note on Management by Objectives.
c) Explain the scope and objectives of Management Audit.

Q6) ***Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks***

a) Write a short note on various types of responsibility centers.
b) Write a short note on Strategic Business Units.
c) Explain the concept of Corporate Strategy?

Q7) ***Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks***

a) Write a short note on Zero Based Budgeting. Why is so important in management control systems?
b) Write a short note on Matrix Organisation structure with diagram.
c) Explain various techniques used for financial forecasting.
