INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

June 2018 End Semester Examinations
M.Tech. (Marine Engineering & Management)
Semester-II

Financial Management & Cost Accounting (PG13T1204)

Date :31-05-2018 **Maximum Marks : 100**
Time: 3 Hrs **Pass Marks : 50**

Note: Answer any five questions. All questions carry equal marks.
(5 x 20 Marks = 100 Marks)

1.(a) What are the objectives of financial management? Which one is superior and why?

(b) What are the functions of financial management?

(C) From the following data compute discounted payback period?

Year	1	2	3	4	5
Cash Flow(Rs.)	20,000	25,000	30,000	15,000	30,000

Investment Rs.40,000. Discount factor is 10%.

(d) Mr. Bhattacharya borrows Rs.15,00,000 to buy a bungalow in Rajarhat. He wants to repay this amount in 15 equal annual instalments. The loan has been taken from a commercial bank which charges interest @ 10% p.a. What is the amount of each annual instalment? ($PVIFA_{10.15}$=7.606]

(5+5+5+5 =20)

2.(a) A Company has to select one of the two alternative projects are given below:

	Initial	Net Cash Flow (Rs.)			
	Outlay (Rs.)	Y_1	Y_2	Y_3	Y_4
Project I	11,872	10,000	2,000	1,000	1,000
Project II	10,067	1,000	1000	2,000	10,000

The company can arrange the fund at 8%. Compute the NPV and IRR of and comment on the result.

(b) Beta company is considering the purchase of one of the following machines, relevant data provided below :

	Machine A	Machine B
Original Cost	Rs. 1,00,000	Rs. 1,00,000
estimated Life	3 Years	3 Years
Earning (after tax) :	(Rs.)	(Rs.)
Year 1	30,000	20,000
Year 2	50,000	80,000
Year 3	40,000	40,000

The firm follows the straight line method of depreciation; estimated salvage value of both the machine is zero. Determine the ARR (Accounting Rate of Return) of both machines.

(10 +10 =20)

3.(a) What are the different types of dividend?

(b)From the following information, calculate the market value of equity share of a company as per Walter's model:
Earning after tax – Rs. 15,00,000; number of equity shares outstanding – 3,00,000; Dividend paid – Rs. 6,00,000; Price earning ratio – 10; Rate of return on investment – 20%. What is optimum dividend pay-out ratio in this case?

(c) Shipping Ltd. has the following Capital Structure:

	Rs. (In Lakhs)
Equity share Capital (10 lakhs shares)	100
12% Preference share Capital (10,000 shares)	10
Retained Earnings	120
14% Debentures (70,000 Debentures)	70
12 % Term Loan	100
	400

The Market price per equity share is Rs. 25. The next expected dividend per share is Rs. 2 and is expected to grow at 8%.
The preference shares are redeemable after 7 years at par and are currently quoted at Rs. 75 per preference shares.
The debentures are redeemed at par after 5 years and current market is Rs. 90 per debenture.
The tax rate to the firm is 50%.
You are required to compute cost of capital using
(a) Market Value (b) Book Value as weights.

(5 + 5+ 10 = 20)

4.(a) What are the determinants of optimum capital structure?

(b)What is high geared, low geared and evenly geared capital structure?

(c) A Simplified income statement of Fortune Ltd. is given below :

Particulars	Amount (Rs)
Sales	12,00,000
Variable Cost	9,00,000
Fixed cost	1,00,000
EBIT	2,00,000
Interest	70,000
Tax (30%)	39,000
Net income	91,000

Calculate the following :

(i) Degree of operating leverage
(ii) Degree of Financial leverage
(iii) degree of Combined leverage.

(d) From the following particulars of Standard shipping Company calculate

(i) Value of Equity
(ii) Value of Debt
(iii) Value of the firm
(iv) Cost of capital
Where [EBIT Rs. 30,000; Cost of equity 16%; Cost of Debt 8%
& Capital structure: Equity Rs. 150,000; 8%Debt Rs. 80,000]

(5+5+5+5 =20)

5.(a) From the following information, prepare the Balance Sheet of M. Ltd. as on 31.03.2017:

Current Ratio	2:1
Liquid Ratio	1.25:1
Fixed Assets to proprietorship Ratio	0.75:1
Working Capital (Net)	Rs. 8,000
Reserve & Surplus	Rs. 2,000
Bank Overdraft	Rs. 2,000
Long term loan	Nil

(b) Compute Net Cash Flow from Operating Activities from the following :

Profit & Loss A/c. as on 31.03.17 Rs. 2,30,000
and as on 31.03.18 Rs. 1,60,000

Other transactions during the year :

Bad debt written off Rs. 15,000; Depreciation Provided Rs. 30,000; Dividend on Investment Rs. 6,000; Debenture interest paid Rs. 4,000; Preliminary expenses written off Rs. 2,000; Tax paid Rs. 14,000; Interim

Dividend paid Rs. 8,000; Transfer to Reserve Rs. 40,000; Old Machinery (W.D.V. 18,000) sold for Rs. 20,000; Increase in Working Capital Rs. 12,000.

(c) From the following 'Trend Analysis' construct the comparative statement of Fixed assets in absolute value taking 2014 as the base year.

Trend percentage			Corresponding value of Fixed assets in 2017	
2015 (%)	2016 (%)	2017 (%)	(Rs.)	
90	80	70	14,000	Goodwill
125	160	180	5,40,000	Land and Building
110	125	160	4,80,000	Plant
120	200	230	4,60,000	Machinery
105	115	120	60,000	Furniture

(10+5+5=20)

6. Short notes (any 4) (4*5=20)
   (a) Peaking order theory of capital structure.
   (b) Users of financial statement
   (c) Venture capital financing
   (d) Net present value
   (e) Factors of dividend

7. (a) following information are available for the year 2016 and 2017 of PIX Limited:

Year	2016	2017
Sales	Rs 31,00,000	Rs 57,00,000
Profit/(Loss)	(Rs 3,00,000)	Rs 7,00,000

Calculate – (a) P/V ratio, (b) Total fixed cost, and (c) Sales required to earn a Profit of Rs 12,00,000.

(b) Distinguished between cost centre and cost unit.

(c) What are the objective of cost accounting.

(d) Classify the cost on the basis of its nature

Cost elements	At 1000 units	At 2500 units	At 4000 units
A	Rs. 50,000	Rs. 125,000	?
B	Rs. 60,000	Rs. 60,000	?
C	Rs. 100,000	Rs. 130,000	?

(5+5+5+5=20)

8.(a) ABC Ltd. Can produce 4,00,000 units of a product per annum at 100 % capacity. The variable production cost are Rs 40 per unit and variable selling expenses are Rs 12 per sold unit. The budgeted fixed production expenses were rs 24,00,000 per annum and the fixed selling expenses were Rs 16,00,000. During the year ended 31st March, 2017 , the company worked at 80% of its capacity. The operating data for the year are as follows:

Production	3,20,000 units
Sales @ Rs 80 per unit	3,10,000 units
Opening stock of finished goods	40,000 units

Fixed production expenses are absorbed on the basis of the capacity and fixed selling expenses are recovered on the basis of period.

You are required to prepare Statements of cost and profit for the ending 31st March, 2017:

(i) On the basis of marginal costing
(ii) On the basis of absorption costing

(b) Pentax Limited has prepared its expense budget for 20,000 units in its factory for the year 2017 as detailed below:

	(Rs per unit)
Direct materials	50
Direct labour	20
Variable overhead	15
Direct expenses	6
Selling Expenses (20% fixed)	15
Factory expenses (100% fixed)	7
Administration expenses (100% fixed)	4
Distribution expenses (85% variable)	12
Total	**129**

Prepare an expense budget for the production of 15,000 units and 18,000 units.

(10+10=20)

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