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MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University, Manipal – 576 104



DEPARTMENT OF HUMANITIES & MANAGEMENT
VI SEM. B.TECH. (OPEN ELECTIVE) DEGREE END SEMESTER EXAMINATIONS
MAY 2014
SUBJECT: HSS-304: FINANCIAL MANAGEMENT
REVISED CREDIT SYSTEM
(16/05/2014)

Time: 3 Hours.

MAX.MARKS: 50

Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ **Interest factors** are provided in the **last page** of the paper.
- ❖ **Missing data**, if any, may be suitably **assumed or calculated**.

- 1A)** National Travel Agency specializes in flights between New Delhi and Dubai. It books passengers on Indian Airlines at Rs. 9000 per round-trip ticket. Until last month, Indian Airlines paid National a commission of 10% of the ticket price paid by each passenger. This commission was National's only source of revenues. National's fixed costs are Rs.1,40,000 per month (for salaries, rent and so on), and its variable costs are Rs.200 per ticket purchased for a passenger. This Rs.200 includes an Rs.150 per ticket delivery fee paid to Desk-to-Desk Couriers. (To keep the analysis simple, assume each round-trip ticket purchased is delivered in a separate package. Thus, the Rs.150 delivery fee applies to each ticket.)
- Indian Airlines has just announced a revised payment schedule for all travel agents. It will now pay travel agents a 10% commission per ticket up to a maximum of Rs.500. Any ticket costing more than Rs.5000 generates only a Rs. 500 commission, regardless of the ticket price.
- a)** Under the old 10% commission structure, how many round-trip tickets must National sell each month, **(03)**
- i) To Breakeven?
 - ii) To earn an operating income of Rs.70000?
 - iii) If the National is planning to spend 40000 on advertisement what should be the reduction in the variable cost in order to maintain the breakeven which is calculated in (i).
- b)** How does the Indian's revised payment schedule affect your answers to (i) and (ii) **(02)**
in Question a?
- 1B)** Define Total Contribution Margin and Marginal Cost with an example for each and also represent the same graphically. **(03)**

- 1C)** Describe the assumptions underlying CVP analysis. **(02)**
- 2A)** Travis Wenzel has \$2,000 to invest. Usually, he would deposit the money in his savings account, which earns 6% interest compounded monthly. However, he is considering three alternative investment opportunities: **(04)**
- Option 1:** Buying and holding a stock that grows 11% per year for three years.
- Option 2:** Making a personal loan of \$2,000 to a friend and receiving \$150 per year for three years.
- Option 3:** Purchasing a 7 year old bond for \$2,000. The bond has a face value of \$2,000 and a coupon rate of 10% payable semi-annually, with a maturity period of 10 years. Recommend the best option to Travis.
- 2B) a)** Briefly explain the significance of final accounts. **(02)**
- b)** From the following trial balance extracted from the books of Skanda Pvt. Ltd. as on 31.12.13. Prepare (i) Trading and Profit & Loss A/c and (ii) Balance Sheet **(04)**

Debit Balances	Rs.	Credit Balances	Rs.
Cash in hand	4,000	Capital	6,00,000
Machinery	90,000	Sales	7,54,800
Stock	70,000	Sundry Creditors	70,000
Bills receivable	2,600	Bank overdraft	52,000
Sundry debtors	30,000	Return outwards	6,000
Wages	1,00,000	Discount received	2,800
Land	4,00,000	Bills payable	4,800
Carriage inwards	3,400		
Purchases	6,80,000		
Salaries	44,000		
Rent	10,000		
Postage	4,000		
Return inwards	3,200		
Drawings	20,000		
Furniture	21,000		
Interest	800		
Cash at bank	6,600		
	14,89,600		14,89,600

Closing stock as on 31-12-13 Rs.1,00,000

- 3A)** Reizenstein Trucking (RT) has just developed a solar panel capable of generating 200% more electricity than any solar panel currently on the market. As a result, RT is expected to experience a 15% annual growth rate for the next 5 years. By the end of 5 years, other firms will have developed comparable technology, and RT's growth rate **(03)**

will slow to 5% per year indefinitely. Stockholders require a return of 12% on RT's stock. The most recent annual dividend (D_0), which was paid yesterday, was \$1.75 per share.

- a) Calculate RT's expected dividends for $t=1$, $t=2$, $t=3$, $t=4$, and $t=5$.
- b) Calculate the value of stock today.

3B) The present price (year 0) of kerosene is \$1.80 per gallon, and its cost is expected to increase by \$.15 per year. (At the end of year 1, kerosene will cost \$1.95 per gallon.) Mr. Garcia uses about 800 gallons of kerosene for space heating during a winter season. He has an opportunity to buy a storage tank for \$600, and at the end of four years he can sell the storage tank for \$100. The tank has a capacity to supply four years of Mr. Garcia's heating needs, so he can buy four years' worth of kerosene at its present price (\$1.80), or he can invest his money elsewhere at 6%. Should he purchase the storage tank? Assume that kerosene purchased on a pay-as-you-go basis is paid for at the end of the year. (However, kerosene purchased for the storage tank is purchased now.) **(04)**

3C) List out the functions of Chief Financial Officer that can make or mar the company's success and explain any four of them. **(03)**

4A) Information related to Nazrul Company from its financial statements is presented below: **(07)**

	20X6	20X5
Net Sales (in Rs.)	86,000	71,000
Profit After Tax (in Rs.)	12,000	11,000
Total Assets (in Rs.)	49,000	41,000
Shareholder's Equity (in Rs.)	27,000	21,000

At the end of 20X4, the company had total assets of Rs.35,000 and shareholder's equity of Rs.18,000.

Required:

- i) Compute the profit margins, asset turnover, return on assets, and return on equity for 20X5 and 20X6.
- ii) Comment on company's profitability in 20X5 and 20X6.

4B) Write a note on different types of ratio approach of equity valuation. **(03)**

5A) The rate of return you would get if you bought a bond and held it to its maturity date is called the bond's yield to maturity. If interest rates in the economy rise after a bond have been issued, what will happen to the bond's price? Justify your answers with suitable example. **(03)**

5B) An electric motor is rated at 10 horsepower (HP) and costs \$800. Its full load efficiency is specified to be 85%. A newly designed high-efficiency motor of the same size has an efficiency of 90%, but costs \$1,200. It is estimated that the motors will operate at a **(04)**

rated 10 HP output for 1,500 hours a year, and the cost of energy will be \$0.07 per kilowatt-hour. Each motor is expected to have a 15-year life. At the end of 15 years, the first motor will have a salvage value of \$50 and the second motor will have a salvage value of \$100. Consider the MARR to be 6%. Use the NPW criterion to determine which motor should be installed. (Note: 1 HP = 0.7457 kW.)

5C) Calculate the current assets of a firm with the following data: (03)

Stock turnover ratio = 5 times

Stock at the end = Rs.5000 more than the stock at the beginning.

Sales = Rs.2,00,000

Gross Profit Ratio = 20%

Current Liabilities = Rs.60,000

Quick Ratio = 0.75

6) On January 1, 201X Manohar started QualPhoto Company. The following transactions took place during the first month:

Jan 1	Manohar invested Rs.30,000 cash in the company's share capital
2	Bought supplies of photographic materials on credit, Rs.9000
5	Bought photographic equipment for cash, Rs.12,000
7	Received fees for photographic services, Rs.15000
13	Paid creditor for supplies, Rs.5000
18	Took a loan, Rs.12,000
22	Billed customers for services, Rs.19,000
27	Paid office rent, Rs.2,500 and electricity charges, Rs.1,200
31	Paid dividends, Rs.4,000

i) You are required to prepare the Journal entries, and Ledger a/c's. (07)

ii) Explain the Business Entity Concept and Going Concern Concept of accounting. (03)

3%

Compound Interest Factors

3%

n	Single Payment		Uniform Payment Series				Arithmetic Gradient		n
	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Compound Amount Factor	Present Worth Factor	Gradient Uniform Series	Gradient Present Worth	
	Find F Given P	Find P Given F	Find A Given F	Find A Given P	Find F Given A	Find P Given A	Find A Given G	Find P Given G	
	F/P	P/F	A/F	A/P	F/A	P/A	A/G	P/G	
1	1.030	.9709	1.0000	1.0300	1.000	0.971	0	0	1
2	1.061	.9426	.4926	.5226	2.030	1.913	0.493	0.943	2
3	1.093	.9151	.3235	.3535	3.091	2.829	0.980	2.773	3
4	1.126	.8885	.2390	.2690	4.184	3.717	1.463	5.438	4
5	1.159	.8626	.1884	.2184	5.309	4.580	1.941	8.889	5
6	1.194	.8375	.1546	.1846	6.468	5.417	2.414	13.076	6
7	1.230	.8131	.1305	.1605	7.662	6.230	2.882	17.955	7
8	1.267	.7894	.1125	.1425	8.892	7.020	3.345	23.481	8

4%

Compound Interest Factors

4%

n	Single Payment		Uniform Payment Series				Arithmetic Gradient		n
	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Compound Amount Factor	Present Worth Factor	Gradient Uniform Series	Gradient Present Worth	
	Find F Given P	Find P Given F	Find A Given F	Find A Given P	Find F Given A	Find P Given A	Find A Given G	Find P Given G	
	F/P	P/F	A/F	A/P	F/A	P/A	A/G	P/G	
1	1.040	.9615	1.0000	1.0400	1.000	0.962	0	0	1
2	1.082	.9246	.4902	.5302	2.040	1.886	0.490	0.925	2
3	1.125	.8890	.3203	.3603	3.122	2.775	0.974	2.702	3
4	1.170	.8548	.2355	.2755	4.246	3.630	1.451	5.267	4
5	1.217	.8219	.1846	.2246	5.416	4.452	1.922	8.555	5
6	1.265	.7903	.1508	.1908	6.633	5.242	2.386	12.506	6
7	1.316	.7599	.1266	.1666	7.898	6.002	2.843	17.066	7
8	1.369	.7307	.1085	.1485	9.214	6.733	3.294	22.180	8

6%

Compound Interest Factors

6%

n	Single Payment		Uniform Payment Series				Arithmetic Gradient		n
	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Compound Amount Factor	Present Worth Factor	Gradient Uniform Series	Gradient Present Worth	
	Find F Given P	Find P Given F	Find A Given F	Find A Given P	Find F Given A	Find P Given A	Find A Given G	Find P Given G	
	F/P	P/F	A/F	A/P	F/A	P/A	A/G	P/G	
1	1.060	.9434	1.0000	1.0600	1.000	0.943	0	0	1
2	1.124	.8900	.4854	.5454	2.060	1.833	0.485	0.890	2
3	1.191	.8396	.3141	.3741	3.184	2.673	0.961	2.569	3
4	1.262	.7921	.2286	.2886	4.375	3.465	1.427	4.945	4
5	1.338	.7473	.1774	.2374	5.637	4.212	1.884	7.934	5
6	1.419	.7050	.1434	.2034	6.975	4.917	2.330	11.459	6
7	1.504	.6651	.1191	.1791	8.394	5.582	2.768	15.450	7
8	1.594	.6274	.1010	.1610	9.897	6.210	3.195	19.841	8
9	1.689	.5919	.0870	.1470	11.491	6.802	3.613	24.577	9
10	1.791	.5584	.0759	.1359	13.181	7.360	4.022	29.602	10

7%

Compound Interest Factors

7%

n	Single Payment		Uniform Payment Series				Arithmetic Gradient		n
	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Compound Amount Factor	Present Worth Factor	Gradient Uniform Series	Gradient Present Worth	
	Find F Given P	Find P Given F	Find A Given F	Find A Given P	Find F Given A	Find P Given A	Find A Given G	Find P Given G	
	F/P	P/F	A/F	A/P	F/A	P/A	A/G	P/G	
1	1.070	.9346	1.0000	1.0700	1.000	0.935	0	0	1
2	1.145	.8734	.4831	.5531	2.070	1.808	0.483	0.873	2
3	1.225	.8163	.3111	.3811	3.215	2.624	0.955	2.506	3
4	1.311	.7629	.2252	.2952	4.440	3.387	1.416	4.795	4
5	1.403	.7130	.1739	.2439	5.751	4.100	1.865	7.647	5
6	1.501	.6663	.1398	.2098	7.153	4.767	2.303	10.978	6
7	1.606	.6227	.1156	.1856	8.654	5.389	2.730	14.715	7
8	1.718	.5820	.0975	.1675	10.260	5.971	3.147	18.789	8
9	1.838	.5439	.0835	.1535	11.978	6.515	3.552	23.140	9
10	1.967	.5083	.0724	.1424	13.816	7.024	3.946	27.716	10