334

Financial, Treasury and Forex Management

Roll No.....

Time allowed : 3 hours *Maximum marks : 100*

Total number of questions : 7 *Total number of printed pages : 7*

NOTE : *1. Answer FIVE questions including Question No.1 which is compulsory. All working notes should be shown distinctly.*

2. Tables showing the present value of Re.1 and the present value of an annuity of Re.1 for 15 years are annexed.

1. Attempt ***any four*** of the following :

(i) "Beta of a security can also be negative." Comment.

(ii) "Internal treasury control is a process of self-improvement." Explain.

(iii) "Optimal investment decisions need to be made taking into consideration specific factors." Explain.

(iv) "Depository system has unique advantages for investors, brokers and issuing company." Discuss.

(v) "Public deposits have more benefits for issuing companies and investors than merely sharing the spreads of financial intermediaries." Discuss.

(5 marks each)

2. A product is currently manufactured on a plant which is not fully depreciated for tax purpose and has a book value of Rs.60,000. This plant was established six years ago at a cost of Rs.1,20,000. Per unit cost of the product is as follows :

	Rs.
Direct labour and material	24
Indirect labour	8
Variable overheads	16
Fixed overheads	16
	64

Normally, 10,000 units are produced in the plant. It is expected that old machine can be used for indefinite period after suitable repairs which are estimated to cost Rs.40,000 per annum. A manufacturer of modern machines offers new machine of latest technology,

after trading off old machine for Rs.30,000, at a cost of Rs,3,00,000. The production cost per unit on this new machine is projected as under :

	Rs.
Direct labour and material	14
Indirect labour	12
Variable overheads	12
Fixed overheads	20
	58

The fixed overheads are allocated from other departments plus department of plant and machinery. The new machine is expected to last for 10 years at the end of which, salvage value of new machinery will be Rs.20,000. The minimum rate of return is expected to be 10%. It is also expected that in future, the demand for the product will stay at 10,000 units per annum. For tax purposes, the cost of old and new machinery will be depreciated in 10 years and the tax rate applicable is 30%. Advise whether the new machinery be installed or not. Ignore capital gains tax.

(20 marks)

3. (a) From the following information, determine the market value of equity shares of the company :

Earnings of the company	Rs.5,00,000
Dividend paid	Rs.3,00,000
Number of shares outstanding	1,00,000
Price-earnings ratio	8
Rate of return on investment	15%

Are you satisfied with the current dividend policy of the company ? If not, what should be the optimal dividend payment ratio ? Use Walter's Model.

(10 marks)

(b) Nachiketa Ltd. is setting-up a plant for manufacture and sale of Teddy Bears. Assess its working capital requirement from the following :

	Cost Per Unit (Rs.)
Raw material	220
Direct labour	105
Overheads	190
Depreciation	35
	550

Estimated data regarding credit period allowed and received for the following year is as under :

	Average weeks
Raw material in stock	6
Work-in-progress (50% completion stage with similar percentage of material consumption)	2
Finished goods	4
Credit allowed by suppliers	4
Credit allowed to buyers	5

Cash at bank Rs.60,000.

Selling price (per unit) Rs.800.

Assume that production is sustained at an even pace during the 52 weeks in a year and all sales are on credit. Raw material is introduced at the commencement of the process. There is one week lag in overheads and the total estimated production is 35,000 units.

(10 marks)

4. Differentiate between ***any four*** of the following :

(i) 'Investment' and 'speculation'.

(ii) 'Real estate mortgage' and 'real estate lease'.

(iii) 'Covered option' and 'naked option'.

(iv) 'Current account convertibility' and 'capital account convertibility'.

(v) 'Financial engineering' and 'financial restructuring'.

(5 marks each)

5. (a) During a 5-year period, the relevant results for the aggregate market are that the r_f (risk-free rate) is 8% and the r_m (return on market) is 14%. For that period, the results of four portfolio managers are as follows :

Portfolio Manager	*Average Return (%)*	*Beta*
A	13	0.80
B	14	1.05
C	17	1.25
D	13	0.90

Using CAPM model, you are required to --

(i) Calculate the expected rate of return for each portfolio manager and compare the actual returns with the expected returns.

(ii) Based upon your calculations, select portfolio manager with the best performance.

(8 marks)

(b) Diversified Ltd. is evaluating a Granite project for which it proposes to use a debt-equity ratio of 1.5 : 1. The pre-tax cost of debt is 15% and tax rate is expected to be 30%. The risk-free rate of return is 12% and expected rate of return on market portfolio is 16%. It is further informed that the equity beta of three firms, engaged wholly in the same line of business, obtained by regressing their equity returns on the market portfolio for the past 60 months, and debt-equity ratio with effective tax rate 40% is as under :

	Beta	*Debt-Equity Ratio*
Ankit Granites Ltd.	1.20	2.1
Bharat Granites Ltd.	1.10	1.8
Modern Granites Ltd.	1.05	1.3

You are required to calculate weighted average cost of capital using capital asset pricing model (CAPM) for Diversified Ltd.

(6 marks)

(c) The following data is available for Evergreen Ltd. :

	Rs.
Sales	2,00,000
Less : Variable cost @ 30%	60,000
Contribution	1,40,000
Less : Fixed cost	1,00,000
EBIT	40,000
Less : Interest	5,000
Profit before tax	35,000

Find out --

(i) Using the concept of financial leverage, by what percentage will the taxable income increase, if EBIT increases by 6%.

(ii) Using the concept of operating leverage, by what percentage will EBIT increase if there is 10% increase in sales.

(iii) Using the concept of leverage, by what percentage will the taxable income vary, if the sales increase by 6%. Verify the result in view of the above figures.

(2 marks each)

6. Write notes on ***any four*** of the following :

(i) Financial planning

(ii) Consequences of low and high pay-out ratios

(iii) Economic aspects of project appraisal

(iv) Regulatory framework for financial system

(v) Operating cycle.

(5 marks each)

7. The balance sheet of Piya Ltd. is given below. Sales during the year 2008 were Rs.40,00,000 and the profit margin was 10%. It was expected that the sales would go up to Rs.60,00,000. Management is willing to maintain the same dividend pay-out ratio of 40% as that of last year.

Balance Sheet of Piya Ltd. as at 31st March, 2008

Assets	*Rs. in '000*
Cash	100
Debtors	900
Inventories	2,000
Net fixed assets	3,000
	6,000
Liabilities	
Accounts payables	400
Accrued wages	500
Bank loan	100
Long-term loan	3,000
Equity capital	500
Retained earnings	1,500
	6,000

The company is working at less than the full operating capacity. There is no change in loans from banks.

Income Statement of Piya Ltd. for the year ended 31st March, 2008

	Rs. in '000
Sales	4,000
Cost of goods sold and other expenses	3,000
Profit before interest and tax	1,000
Interest expenses	200
Profit before tax	800
Tax 30%	240
Net profit	560

You are required to compute the funds required from external sources to finance the increased activities.

(20 marks)

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TABLE – 1 : **PRESENT VALUE OF RUPEE ONE**

RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
5%	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303	0.5051	0.4810
6%	0.9434	0.8900	0.8396	0.7921	0.7473	0.7050	0.6651	0.6274	0.5919	0.5584	0.5268	0.4970	0.4688	0.4423	0.4173
7%	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439	0.5083	0.4751	0.4440	0.4150	0.3878	0.3624
8%	0.9259	0.8573	0.7938	0.7350	0.6806	0.6302	0.5835	0.5403	0.5002	0.4632	0.4289	0.3971	0.3677	0.3405	0.3152
9%	0.9174	0.8417	0.7722	0.7084	0.6499	0.5963	0.5470	0.5019	0.4604	0.4224	0.3875	0.3555	0.3262	0.2992	0.2745
10%	0.9091	0.8264	0.7513	0.6830	0.6209	0.5645	0.5132	0.4665	0.4241	0.3855	0.3505	0.3186	0.2897	0.2633	0.2394
11%	0.9009	0.8116	0.7312	0.6587	0.5935	0.5346	0.4817	0.4339	0.3909	0.3522	0.3173	0.2858	0.2575	0.2320	0.2090
12%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066	0.4523	0.4039	0.3606	0.3220	0.2875	0.2567	0.2292	0.2046	0.1827
13%	0.8850	0.7831	0.6931	0.6133	0.5428	0.4803	0.4251	0.3762	0.3329	0.2946	0.2607	0.2307	0.2042	0.1807	0.1599
14%	0.8772	0.7695	0.6750	0.5921	0.5194	0.4556	0.3996	0.3506	0.3075	0.2697	0.2366	0.2076	0.1821	0.1597	0.1401
15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472	0.2149	0.1869	0.1625	0.1413	0.1229
16%	0.8621	0.7432	0.6407	0.5523	0.4761	0.4104	0.3538	0.3050	0.2630	0.2267	0.1954	0.1685	0.1452	0.1252	0.1079
17%	0.8547	0.7305	0.6244	0.5337	0.4561	0.3898	0.3332	0.2848	0.2434	0.2080	0.1778	0.1520	0.1299	0.1110	0.0949
18%	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704	0.3139	0.2660	0.2255	0.1911	0.1619	0.1372	0.1163	0.0985	0.0835
19%	0.8403	0.7062	0.5934	0.4987	0.4190	0.3521	0.2959	0.2487	0.2090	0.1756	0.1476	0.1240	0.1042	0.0876	0.0736
20%	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349	0.2791	0.2326	0.1938	0.1615	0.1346	0.1122	0.0935	0.0779	0.0649
21%	0.8264	0.6830	0.5645	0.4665	0.3855	0.3186	0.2633	0.2176	0.1799	0.1486	0.1228	0.1015	0.0839	0.0693	0.0573
22%	0.8197	0.6719	0.5507	0.4514	0.3700	0.3033	0.2486	0.2038	0.1670	0.1369	0.1122	0.0920	0.0754	0.0618	0.0507
23%	0.8130	0.6610	0.5374	0.4369	0.3552	0.2888	0.2348	0.1909	0.1552	0.1262	0.1026	0.0834	0.0678	0.0551	0.0448
24%	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751	0.2218	0.1789	0.1443	0.1164	0.0938	0.0757	0.0610	0.0492	0.0397
25%	0.8000	0.6400	0.5120	0.4096	0.3277	0.2621	0.2097	0.1678	0.1342	0.1074	0.0859	0.0687	0.0550	0.0440	0.0352

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TABLE – 2 : PRESENT VALUE OF AN ANNUITY OF RUPEE ONE

RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986	10.3797
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2098	6.8017	7.3601	7.8869	8.3838	8.8527	9.2950	9.7122
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5152	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2064	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595
9%	0.9174	1.7591	2.5313	3.2397	3.8897	4.4859	5.0330	5.5348	5.9952	6.4177	6.8052	7.1607	7.4869	7.7862	8.0607
10%	0.9091	1.7355	2.4869	3.1699	3.7908	4.3553	4.8684	5.3349	5.7590	6.1446	6.4951	6.8137	7.1034	7.3667	7.6061
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2065	6.4924	6.7499	6.9819	7.1909
12%	0.8929	1.6901	2.4018	3.0373	3.6048	4.1114	4.5638	4.9676	5.3282	5.6502	5.9377	6.1944	6.4235	6.6282	6.8109
13%	0.8850	1.6681	2.3612	2.9745	3.5172	3.9975	4.4226	4.7988	5.1317	5.4262	5.6869	5.9176	6.1218	6.3025	6.4624
14%	0.8772	1.6467	2.3216	2.9137	3.4331	3.8887	4.2883	4.6389	4.9464	5.2161	5.4527	5.6603	5.8424	6.0021	6.1422
15%	0.8696	1.6257	2.2832	2.8550	3.3522	3.7845	4.1604	4.4873	4.7716	5.0188	5.2337	5.4206	5.5831	5.7245	5.8474
16%	0.8621	1.6052	2.2459	2.7982	3.2743	3.6847	4.0386	4.3436	4.6065	4.8332	5.0286	5.1971	5.3423	5.4675	5.5755
17%	0.8547	1.5852	2.2096	2.7432	3.1993	3.5892	3.9224	4.2072	4.4506	4.6586	4.8364	4.9884	5.1183	5.2293	5.3242
18%	0.8475	1.5656	2.1743	2.6901	3.1272	3.4976	3.8115	4.0776	4.3030	4.4941	4.6560	4.7932	4.9095	5.0081	5.0916
19%	0.8403	1.5465	2.1399	2.6386	3.0576	3.4098	3.7057	3.9544	4.1633	4.3389	4.4865	4.6105	4.7147	4.8023	4.8759
20%	0.8333	1.5278	2.1065	2.5887	2.9906	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4392	4.5327	4.6106	4.6755
21%	0.8264	1.5095	2.0739	2.5404	2.9260	3.2446	3.5079	3.7256	3.9054	4.0541	4.1769	4.2784	4.3624	4.4317	4.4890
22%	0.8197	1.4915	2.0422	2.4936	2.8636	3.1669	3.4155	3.6193	3.7863	3.9232	4.0354	4.1274	4.2028	4.2646	4.3152
23%	0.8130	1.4740	2.0114	2.4483	2.8035	3.0923	3.3270	3.5179	3.6731	3.7993	3.9018	3.9852	4.0530	4.1082	4.1530
24%	0.8065	1.4568	1.9813	2.4043	2.7454	3.0205	3.2423	3.4212	3.5655	3.6819	3.7757	3.8514	3.9124	3.9616	4.0013
25%	0.8000	1.4400	1.9520	2.3616	2.6893	2.9514	3.1611	3.3289	3.4631	3.5705	3.6564	3.7251	3.7801	3.8241	3.8593