

Financial Treasury and Forex Management

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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. Comment on **any four** of the following :

- (i) While deciding upon the capital structure, the firm has to consider the different life cycle stages.
- (ii) Financial services industry encompasses a considerable range and depth of activities.
- (iii) Tools and techniques of treasury manager are very specific.
- (iv) Traditional approach of business finance considers efficient utilisation of resources.
- (v) Playing with float is a risky proposition.

(5 marks each)

2. (a) Priyanka Ltd. has the following capital structure as on 31st March, 2009 :

	Rs.
Equity shares : 20,000 Shares of Rs.100 each	20,00,000
10% Preference Shares (of Rs.100 each)	8,00,000
12% Debentures (of Rs.1,000 each)	12,00,000
	40,00,000
	40,00,000

The company's shares are sold in the market at Rs.110 each and it is expected that a dividend of Rs.10 per share would be declared for the year 2009. The dividend growth rate is likely to remain at 6%.

- (i) You are required to calculate the weighted average cost of capital, if the company comes in the tax bracket of 30%.
- (ii) The company is planning to diversify its production activities and intends to borrow a sum of Rs.20 lakh at the rate of 15% per annum. This financing decision is expected to increase dividend from Rs.10 to Rs.12 per share, however, the market price of the equity share is likely to decrease from Rs.110 to Rs.105. What will be the company's revised weighted average cost of capital ?

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: 2 :

(iii) Priyanka Ltd. has the following investment opportunities that are typical average risk projects for the company :

<i>Projects</i>	<i>Cost (Rs. in Lakhs)</i> (<i>t=0</i>)	<i>Rate of Return</i> (%)
A	10	17.4
B	20	16.0
C	10	14.2
D	20	13.7
E	10	10.0

Which project (s) should Priyanka Ltd. accept ? Why ?

(4+3+3=10 marks)

(b) Ratan Enterprises requires 1,80,000 units of a certain item annually. The cost per unit and the cost per purchase order are Rs.6 and Rs.600 respectively. The inventory carrying cost is Rs.6 per unit per year.

(i) What is the economic order quantity ?

(ii) What should the firm do if the supplier offers discount as below :

<i>Order Quantity</i>	<i>Discount</i> (%)
9000-11999	2
12,000 and above	3

(6 marks)

(c) On 1st October, Deepak is retiring from service and he will get an amount of Rs.16,32,000 as retirement benefits. He is planning to invest this money in the following three scripts, which he considers grossly under-valued stocks in the market :

<i>Stock</i>	<i>No. of Shares</i>	<i>Price</i> (RS.)	<i>Beta</i>
X	2,000	300	0.42
Y	3,000	416	0.65
Z	4,600	330	1.72

It is September now and he plans to take advantage of this mispricing in the stock market by using futures market. How many October contracts will you be trading if the spot index is 3,990 and October futures are quoted at 4,062 ?

(4 marks)

3. (a) An Indian importer has to settle an import bill for \$1,30,000. The exporter has given the Indian exporter two options :

- (i) Pay immediately without any interest charges.
- (ii) Pay after three months with interest @ 5% per annum.

The importer's bank charges 15% per annum on overdrafts. The exchange rates in the market are as follows :

Spot rate (Rs./\$)	:	48.35/48.36
3-Month forward rate (Rs./\$)	:	48.81/48.83

The importer seeks your advice. Give your advice.

(8 marks)

- (b) Zebra Ltd. was started a year back with paid-up equity capital of Rs.40 lakh. Other details are as under :

Earnings of the year	:	Rs.4,00,000
Dividend paid	:	Rs.3,20,000
Price-earnings ratio	:	12.5
Number of shares	:	40,000

You are required to find out whether company's dividend payout ratio is optimal using Walter's Model, giving reasons.

(6 marks)

- (c) A futures contract is available on a company that pays an annual dividend of Rs.5 and whose stock is currently priced at Rs.200. Each futures contract calls for delivery of 1,000 shares of stock in one year, daily marking to market, an initial margin of 10% and a maintenance margin of 5%. The corporate treasury bill rate is 8%.

- (i) Given the above information, what should the price of one futures contract be?
- (ii) If the company stock price decreases by 7%, what will be the change, if any, in futures price?
- (iii) As a result of the company stock price decrease, will an investor that has a long position in one futures contract of this company realises a gain or loss? Why? What will be the amount of this gain or loss?

(6 marks)

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

- (i) 'Deep discount bonds' and 'disaster bonds'.
- (ii) 'Financial aspects of project appraisal' and 'economic aspects of project appraisal'.
- (iii) 'Index futures' and 'index options'.
- (iv) 'Initial margin' and 'maintenance margin'.
- (v) 'Corporate finance' and 'business finance'.

(5 marks each)

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: 4 :

5. (a) The spot exchange rate is Rs.15/₹ and the three months forward exchange rate is Rs.15.20/₹. The three month interest rate is 8% per annum in India and 5.8% per annum in Germany. Assume that you can borrow as much as Rs.15 lakh or ₹10 lakh.

- (i) Determine whether the interest rate parity is currently holding.
- (ii) How would you carry out covered interest arbitrage ? Show all steps and determine the arbitrage profit.

(4 marks)

- (b) Silver Coin Ltd. is a manufacturing company. It has received an export order of 1,80,000 units. The finance manager of the company is estimating working capital requirements for the production to meet export order. Following information is given for the year 2009-10 :

- (i) Production in 2008-09 was 1,80,000 units and it is estimated that in 2009-10 the level will be maintained.
- (ii) Each unit will remain in process for one month. Raw material being channelised into the pipelines immediately and the labour and overhead costs accruing evenly during the month.
- (iii) Final production will be stored in warehouse awaiting despatch for 3 months.
- (iv) Credit allowed by creditors is 1.5 months from the date of delivery of raw materials.
- (v) Credit permitted to debtors is 2.5 months from the date of despatch.
- (vi) Selling price per unit is Rs.15.
- (vii) The expected ratios of cost to the selling price are raw material 50%, direct wages 15% and overheads 20%.
- (viii) Raw materials are expected to remain in store for an average of 1.5 months before issue to production.
- (ix) There is regular production and sales cycle.
- (x) The company maintains Rs.60,000 as cash in hand.
- (xi) Wages and overheads are paid on the first of each month for the previous month.

You are required to submit the working capital requirement to the finance manager of Silver Coin Ltd.

(16 marks)

6. Surya Manufacturers is planning to start a new manufacturing process. Following are the estimated net cash flows and probabilities of the new manufacturing process :

Year	Net Cash Flows (Rs.)		
	$P=0.2$	$P=0.6$	$P=0.2$
0	(-) 2,00,000	(-) 2,00,000	(-) 2,00,000
1	40,000	60,000	80,000
2	40,000	60,000	80,000
3	40,000	60,000	80,000
4	40,000	60,000	80,000
5	40,000	60,000	80,000
5 (Salvage)	0	40,000	60,000

Surya Manufacturers cost of capital for an average risk project is 10%.

- (a) The project has average risk. Find the project's NPV.
- (b) Find the best case and worst case NPVs. What is the probability of occurrence of the worst case if the cash flows are perfectly dependent (perfectly positively correlated) over time and if they are independent over time ?
- (c) Assume that all the cash flows are perfectly positively correlated, that is, there are only three possible cash flow streams over time : (i) the worst case; (ii) the most likely or base case; and (iii) the best case with probabilities 0.2, 0.6 and 0.2 respectively. These cases are represented by each of the columns in the given table. Find the expected NPV, the standard deviation and co-efficient of variation.

(20 marks)

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

- (i) Types of swaps
- (ii) Capital rationing
- (iii) Technical aspects of feasibility report
- (iv) Trade credit as source of finance
- (v) ABC analysis.

(5 marks each)

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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

1/2010/FTFM (NS)