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)   The optimum dividend policy should strike a balance between current dividends and future growth.

    (ii) Financial leverage is caused due to fixed financial costs.

    (iii) Economic exposure implies change in value of a firm due to unanticipated change in exchange rates.

    (iv) Permanent working capital financed by current liabilities has its pitfalls.

    (v)   Forward exchange rates are always at premium or discount to spot rates.

    (5 marks each)

2. (a) The management of Techno Craft Ltd. is evaluating the following data of a capital project :

	Project "GEE"
Annual cost saving *(Rs.)*	80,000
Useful life *(Years)*	5
Internal rate of return *(%)*	12
Profitability index *(PI)*	1.270457697
N P V	?
Cost of capital	?
Cost of project	?
Payback	?
Salvage value	0

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Find the missing values considering the following table of discount factors only :

Discount Factor	13%	12%	9%	6%	3%
1 Year	0.885	0.893	0.917	0.943	0.971
2 Year	0.783	0.797	0.842	0.890	0.943
3 Year	0.693	0.712	0.772	0.840	0.915
4 Year	0.613	0.636	0.708	0.792	0.888
5 Year	0.543	0.567	0.650	0.747	0.863
	3.517	3.605	3.889	4.212	4.580

(10 marks)

(b) A Portfolio Manager (PM) has the following four stocks in his portfolio :

Security	No. of Shares	Market Price Per Share (Rs.)	β
Varun Shipping Ltd. (VSL)	10,000	50	0.9
Chowgle Steamship Ltd. (CSL)	5,000	20	1.0
Mercatorlines Ltd. (ML)	8,000	25	1.5
Aurbindo Pharma Ltd. (APL)	2,000	200	1.2

Compute the following :

(i) Portfolio beta.

(ii) If the PM seeks to reduce the beta to 0.8, how much risk free investment should he bring in ?

(iii) If the PM seeks to increase the beta to 1.2, how much risk free investment should he bring in ?

(10 marks)

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

(i) 'Direct quote' and 'indirect quote'.

(ii) 'Semi-strong form theory' and 'strong form theory' of efficient market.

(iii) 'Weighted average cost of capital' and 'marginal cost of capital'.

(iv) 'Capital budgeting' and 'capital rationing'.

(v) 'Capital structure' and 'financial structure'.

(5 marks each)

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4. (a) Glow Ltd. is considering to acquire an additional computer to supplement its time-share computer services to its clients. It has two options —

 (i) To purchase the computer for Rs.22,00,000.

 (ii) To lease the computer for 3 years from a leasing company for Rs.5,00,000 as annual lease rent plus 10% of gross time-share service revenue. The agreement also requires an additional payment of Rs.6,00,000 at the end of the third year. Lease rent are payable at the year end, and the computer reverts to the lessor after the contract period.

 The company estimates that the computer under review now will be worth Rs.10,00,000 at the end of third year. Forecast revenues are —

Year	Rs.
1	22,50,000
2	25,00,000
3	27,50,000

Annual operating costs (excluding depreciation/lease rent of computer) are estimated at Rs.9,00,000 with an additional Rs.1,00,000 for start-up and training cost at the beginning of the first year. These costs are to be borne by the lessee. Glow Ltd. will borrow at 16% interest to finance acquisition of computer; repayments are to be made according to the following schedule :

Year-end	Principal (Rs.)	Interest (Rs.)	Total (Rs.)
1	5,00,000	3,52,000	8,52,000
2	8,50,000	2,72,000	11,22,000
3	8,50,000	1,36,000	9,86,000

The company uses straight line method to depreciate its assets and pays 50% tax on its income.

The management of Glow Ltd. approaches you, as the Company Secretary, for advice. Which alternative would you recommend and why ?

(10 marks)

(b) JKL Ltd. has obtained the following data concerning the average working capital cycle for other companies in the same industry :

	Days
Raw material turnover	20
Credit received	40
Work-in-progress turnover	15
Finished goods stock turnover	40
Debtor's collection period	60

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: 4 :

Using the following information, you are required to calculate the current working capital cycle and briefly comment on it :

	Rs. in Thousands
Sales	3,000
Cost of sales	2,100
Purchases	600
Average raw material stock	80
Average work-in-progress	85
Average finished goods stock	180
Average creditors	90
Average debtors	350

(10 marks)

5. (a) DEF Ltd. with a paid-up capital of Rs.25 crore divided into shares of Rs.10 each has securities premium balance of Rs.20 crore and retained earnings of Rs.100 crore. The current market price of its share is Rs.60.

Different options before the company are --

-- Bonus issue   1 : 5

-- Stock split   2 : 1

-- Reverse split   1 : 2

It seeks your advice as to the best option it should adopt so as to maximise the market price per share. Also compute the following under each of the above option :

  (i) Total equity capital of the company.

 (ii) Market price per share.

(iii) Number of shares outstanding.

(iv) Face value per share.

(8 marks)

(b) In International Monetary Market (IMM), an international forward bid on 15th December for one Euro (¤) is \$1.2816. At the same time, the price of IMM ¤ future for delivery on 15th December is \$1.2806. The contract size of futures is ¤ 62,500. How could the dealer use arbitrage to profit from this situation and how much profit is earned ?

(6 marks)

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(c) Consider the following information of Sunrise Ltd.

		Rs. in Lakhs
E B I T	—	2,000
E B T	—	600
Fixed cost	—	1,400

Calculate the percentage of change in EPS, if sales increase by 2%.

(6 marks)

6. STU Ltd. has to make a US $5 million payment in three months time. The required amount in dollars is available with VWX Ltd. Management of the company decides to invest them for three months and following information is available in this context :

   — The US $ deposit rate is 9% per annum.

   — The sterling pound deposit rate is 11% per annum.

   — The spot exchange rate is $1.82/pound.

   — The 3-month forward rate is $1.80/pound.

   Answer the following questions —

   (i) Where should the company invest for better returns ?

   (ii) Assuming that the interest rates and the spot exchange rate remain as above, what forward rate would yield an equilibrium situation ?

   (iii) Assuming that the US interest rate on the spot and forward rates remain as above, where should the company invest if the sterling pound deposit rate were 15% per annum ?

   (iv) With the originally stated spot and forward rates and the same dollar deposit rate, what is the equilibrium sterling pound deposit rate ?

   (20 marks)

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

   (i) Elements of forex management

   (ii) Participants in the derivative market

   (iii) Important aspects for successful monitoring of a project

   (iv) Marked-to-market settlement for futures

   (v) Models of depository.

   (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

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