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 ₹1 and the present value of an annuity of ₹1 for 15 years are annexed.

1. Comment on the following. Attempt ***any four*** :

(i) Financial gearing is a fair weather friend.

(ii) Deferred payment of taxes is a source of working capital.

(iii) The device of capital rationing is adopted to control capital expenditure.

(iv) A stable dividend policy is always preferable to a fluctuating dividend policy.

(v) Intrinsic value of a security is valid for a given set of conditions.

(5 marks each)

2. (a) Three companies X Ltd., Y Ltd. and Z Ltd. are in the same type of business and hence having similar operating risks. However, the capital structure of each of them is different as follows :

	X Ltd. (₹)	Y Ltd. (₹)	Z Ltd. (₹)
Equity share capital (face value ₹10 per share)	4,00,000	2,50,000	5,00,000
Market value per share	15	20	12
Dividend per share	2.70	4.00	2.88
Debentures (face value ₹100 per debenture)	Nil	1,00,000	2,50,000
Market value per debenture	—	125	80
Interest rate on debenture	—	10%	8%

Assume that the current level of dividend is expected to continue indefinitely and the income tax rate is 30%.

You are required to compute the weighted average cost of capital (at market value) of each company.

(10 marks)

(b) Equity shares of Bright India Ltd. are being currently sold for ₹90 per share. Both the call option and put option for a 3-month period are available for a strike price of ₹97 at a premium of ₹3 per share and ₹2 per share respectively. An investor wants to create a straddle position in this share.

Find out his net pay off at expiration of the option period, if the share price on that day happens to be ₹90 or ₹105.

(5 marks)

(c) An investor is holding 1,000 shares of Horizon Ltd. Presently, the rate of dividend being paid by the company is ₹2 per share and the share is sold at ₹25 per share. However, several factors are likely to change during the course of the year as given below :

	Existing	*Revised*
Risk-free rate (%)	12	10
Market risk premium (%)	6	4
Beta (β) value	1.40	1.25
Expected growth rate (%)	5	9

In view of above factors, should the investor buy, hold or sell the shares and why ?

(5 marks)

3. (a) Raghu Electronics wants to take up a new project involving manufacture of an electronic device which has good market prospects. Further details are given below :

	(₹ in lakhs)
(i) Cost of the project *(as estimated)* :	
— Land *(to be incurred at the beginning of the year 1)*	2.00
— Buildings *(to be incurred at the end of the year 1)*	3.00
— Machinery *(to be incurred at the end of the year 2)*	10.00
— Working capital (margin money) *(to be incurred at the beginning of the year 3)*	5.00
	20.00

(ii) The project will go into production from the beginning of year 3 and will be operational for a period of 5 years. The annual working results are estimated as follows :

	(₹ in lakhs)
Sales	24
Variable cost	8
Fixed cost *(excluding depreciation)*	5
Depreciation of assets	2

(iii) At the end of the operational period, it is expected that the fixed assets can be sold for ₹5 lakh (without any profit).

(iv) Cost of capital of the firm is 10%. Applicable tax rate is 33.33% inclusive of surcharge and education cess, *etc.*

You are required to evaluate the proposal using the net present value approach and advise the firm.

(10 marks)

(b) Green Ltd., engaged in the production of synthetic yarn is planning to expand its operations. In this context, the company is planning to import a multi-purpose machine from Japan at a cost of ¥(Yen) 2,460 lakh. The company is in a position to borrow funds from its bank in India to finance import at the interest rate of 12% per annum with quarterly rests. Sumitomo Bank in Tokyo has also offered to extend credit of 90 days at 2% per annum against opening of an irrevocable letter of credit.

Other information is as under :

Present exchange rate : ₹100 = ¥ 246

90 Days forward rate : ₹100 = ¥ 250

Commission charges for letter of credit is @ 4% per 12 months.

Advise whether the offer from Sumitomo Bank should be accepted.

(10 marks)

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

(i) 'Liquidity management' and 'treasury management'.

(ii) 'Financial aspects' and 'economic aspects' of project appraisal.

(iii) 'Current account' and 'capital account' in balance of payment.

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

(v) 'Dematerialisation' and 'immobilisation'.

(5 marks each)

5. (a) A company belongs to a risk class for which the appropriate capitalisation rate is 10%. It currently has outstanding 25,000 shares selling at ₹100 each. The company is contemplating the declaration of dividend of ₹5 per share at the end of the current financial year. The company expects to have a net income of ₹2.5 lakh and has a proposal for making new investments of ₹5 lakh.

You are required to show under the Modigliani and Miller (MM) assumptions, whether payment of dividend affects the value of the company.

(10 marks)

(b) Laxmi Ltd. produces an auto part with a monthly demand of 4,000 units. The product requires Component-X which is purchased at ₹20. For every finished product, one unit of Component-X is required. The ordering cost is ₹120 per order and the holding cost is 10% per annum.

You are required to calculate —

(i) Economic order quantity (EOQ)

(ii) If the minimum lot size to be supplied is 4,000 units, what is the extra cost, the company has to incur ?

(iii) What is the minimum carrying cost, the company has to incur ?

(10 marks)

6. A company has prepared its annual budget, relevant details of which are reproduced below :

(i)	Sales ₹46.80 lakh (25% cash sales and balance on credit)	: 78,000 units
(ii)	Raw material cost	: 60% of sales value
(iii)	Labour cost	: ₹6 per unit
(iv)	Variable overheads	: ₹1 per unit
(v)	Fixed overheads	: ₹5,00,000 (including ₹1,10,000 as depreciation)
(vi)	Budgeted stock levels :	
	Raw materials	: 3 weeks
	Work-in-progress	: 1 week (material 100%; labour and overheads 50%)
	Finished goods	: 2 weeks
(vii)	Debtors are allowed credit	: 4 weeks
(viii)	Creditors allow	: 4 weeks credit
(ix)	Lag in payment of overheads	: 2 weeks
(x)	Cash in hand required	: ₹50,000

(xi) Wages are paid as follows :

(a) for 1st and 2nd week : in the 3rd week

(b) for 3rd and 4th week : in the next week.

Prepare working capital budget (requirement) for a year for the company. Assume one year = 52 weeks.

(20 marks)

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

(i) Sensitivity analysis in capital budgeting

(ii) Stock index futures

(iii) Secured premium notes

(iv) Internal treasury control

(v) Benefits of depository system.

(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

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