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)   Management makes use of ratio analysis to work out the liquidity as a decision criterion.

  (ii)   "Modigliani–Miller theory amplifies that value of the levered firm is same as value of the unlevered firm." Under which circumstances this proposition can be proved.

 (iii)   Movements of the business cycle influence working capital changes at significant level.

 (iv)   Payback period is suitable to measure liquidity of a project rather than its profitability.

  (v)   Since there is no explicit pay-out from the retained earnings, it has been argued that there is no cost.

(5 marks each)

2.   (a)   Following data of Anant Ltd. is given below :

Total sales *(units)*	14,500
Selling price *(per unit)*	₹20
Fixed costs	₹28,000
Variable costs *(per unit)*	₹14
Debt *(@ 11% interest)*	₹1,00,000
Equity shares *(face value ₹10 each)*	₹2,00,000
Tax rate applicable	30%

Calculate the following —

(i) How much would be the sales, earnings and interest ?

(ii) If EBIT doubles, what will be the new level of EBT ?

(iii) What are the operating and combined leverages ?

(8 marks)

(b) The share capital of Vivaan Ltd. consists of 6,000 equity shares of ₹100 each. Its average profit is ₹48,000 and tax rate is 30%. Compute earnings per share (EPS) and dividend per share for Vivaan Ltd.

What will be the earnings per share and dividend per share, if the company raises ₹2,00,000 through issue of 10% debentures ?

(6 marks)

(c) Determine the value of both call option, and put option, on expiry of the stock of Kiwi Ltd. from the following information :

— Exercise price ₹1,020

— Spot price on exercise date ranges between ₹990 and ₹1,040 with interval of ₹10.

Also state what will be the action on the above range of prices for both the options.

(6 marks)

3. (a) Determine weighted average cost of capital using market value weights :

Book value structure	₹
Debentures *(₹100 per debenture)*	8,00,000
Preference shares *(₹100 per share)*	2,00,000
Equity shares *(₹10 per share)*	10,00,000
	20,00,000

Market prices of these securities are :

Debentures	:	₹110 per debenture
Preference shares	:	₹120 per share
Equity shares	:	₹22 per share

Based on external investment opportunities, the expected return on such debentures, preference shares and equity shares have been determined at 6.84%, 14.62% and 16.10% respectively.

(6 marks)

(b) Sona Ltd. manufactures a product which has a weekly demand of 2,500 units. The product requires 5 Kgs. of material for every finished unit of product. Material is purchased at ₹104 per unit. The ordering cost is ₹200 per order and the carrying cost is 10% per annum.

Answer the following —

(i) Calculate economic order quantity. Assume 52 weeks in a year.

(ii) Should the company accept an offer of 3% discount by the supplier who wants to supply the annual requirement of the material in five equal installments ?

(8 marks)

(c) Ravi buys 10,000 shares of Fun Ltd. at ₹22 each and obtains a complete hedge of shorting 400 Nifties at ₹1,100 each. He closes out his position at the closing price of the next day at which point the shares of Fun Ltd. has dropped 2% and the Nifty future has dropped 1.5%. What is the overall profit or loss of this set of transactions ignoring cost of transactions ?

(6 marks)

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

(i) 'Financial structure' and 'capital structure'.

(ii) 'Operating lease' and 'finance lease'.

(iii) 'Support level in technical analysis' and 'resistance level in technical analysis'.

(iv) 'Originating role of treasury manager' and 'supportive role of treasury manager'.

(v) 'Speculative motive of holding cash' and 'contingency motive of holding cash'.

(5 marks each)

5. (a) Grapes Ltd. has 8 lakh equity shares outstanding at the beginning of the year 2014. The current market price per share is ₹120. The Board of directors of the company is contemplating ₹6.40 per share as dividend. The rate of capitalisation appropriate to the risk-class to which the company belongs is 9.6%.

Answer the following —

(i) Calculate the market price of share of the company, when the dividend is declared and not declared.

(3 marks)

    (ii) How many new shares are to be issued by the company, if the company desires to fund an investment budget of ₹3.20 crore by the end of the year assuming net income for the year will be ₹1.60 crore using Modigliani–Miller approach ?

(5 marks)

  (b) Apple Ltd. has decided to invest in earth-moving equipment. The equipment costs ₹5,50,000. The company can take it on lease for 7 years at ₹90,000 per annum payable in advance. Alternatively, it can borrow at 20%. The asset can be written-off over 6 years under straight line method of depreciation and this is allowed under tax. The asset's useful life is 7 years. In the terminal year the asset will be sold for a net value of ₹40,000. The applicable tax rate is 30%. Should the company borrow for buying the equipment or take it on lease ?

(8 marks)

  (c) Following information is made available :

Spot rate for US $1	₹66.0123
180-day forward rate for US $1	₹66.8190
Annualised interest rate for 6 months – Rupee	12%
Annualised interest rate for 6 months – US $	8%

Explore arbitrage possibility.

(4 marks)

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

Sales *(1,56,000 units)*	:	₹93.60 lakh *(25% cash sales and balance on credit)*
Raw material cost	:	60% of sales value
Labour cost	:	₹6 per unit
Variable overheads	:	₹1 per unit
Fixed overheads	:	₹10 lakh *(including ₹2,20,000 as depreciation)*
Budgeted stock levels	:	Raw materials : 3 weeks
		Work-in-progress : 1 week
		(Material 100%, labour and overheads 50%)
		Finished goods : 2 weeks

Additional information :

— Debtors are allowed credit for 4 weeks

— Creditors allow 4 weeks credit

— Wages are paid bi-weekly, *i.e.*, by the 3rd week and by the 5th week for the 1st & 2nd weeks and the 3rd & 4th weeks respectively

— Lag in payment of overheads : 2 weeks

— Cash-in-hand required : ₹1,00,000

Prepare working capital requirement for the company. Assume 52 weeks in a year.

(10 marks)

(b) Simond Ltd. is considering two mutually exclusive projects. Investment outlay of both the projects is ₹5 lakh and each is expected to have a life of 5 years. Under three possible situations, their annual cash flows and probabilities are as under :

		Cash flow (₹)	
Situation	*Probability*	*Project–A*	*Project–B*
Good	0.30	6 lakh	5 lakh
Normal	0.40	4 lakh	4 lakh
Worse	0.30	2 lakh	3 lakh

If the cost of capital is 7%, which project should be accepted ? Consider the risk parameter also in decision making.

(10 marks)

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

 (i) Services provided by venture capital fund

 (ii) Ingredients of project appraisal

(iii) Advantages of FOREX trading

(iv) Importance of debentures

 (v) Stable dividend policy.

(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