335

Roll No.......................................

Time allowed : 3 hours ***Maximum marks : 100***

Total number of questions : 6 ***Total number of printed pages : 10***

NOTE : *1. Answer **ALL** Questions.*

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

3. Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.

4. Working notes should form part of the answer.

1. Comment on the following :

(*a*) Financial service industry includes not only the traditional financial intermediaries but also the special purpose financial institutions.

(*b*) Negative working capital is a sign that the company may be facing serious financial trouble or bankruptcy.

(*c*) Armed with economic and industry forecasts, the analyst looks at the company specific information in fundamental approach of valuation.

(*d*) Venture capitalist prefers to invest in 'entrepreneurial business'.

(*5 marks each*)

Attempt all parts of either Q. No. 2 or Q. No. 2A

2. Distinguish between the following :

(*a*) Net Present Value and Internal Rate of Return

(*b*) Financial Structure and Capital Structure

(*c*) Systematic Risk and Unsystematic Risk

(*d*) Currency Swap and Interest Rate Swap.

(*4 marks each*)

OR (Alternate question to Q. No. 2)

2A. (*i*) Explain essential elements of Forex management.

(*ii*) Explain direct and indirect benefits of Depository System.

(*iii*) What are the main determinants of dividend policy in a corporate enterprise ?

(*iv*) "Treasury manager is required to work in a fast changing and competitive environment." Discuss this statement in the light of tools available to him.

(*4 marks each*)

Attempt all parts of either Q. No. 3 or Q. No. 3A

3. (*a*) The following data relates to Ribbon Ltd. :

	₹
Earning Before Interest and Taxes (EBIT)	30,00,000
Profit after Tax	13,50,000
Operating Fixed Costs	22,50,000
Tax Rate	40%

Required :

(*i*) Prepare the Income Statement of Ribbon Ltd.

(*ii*) If the company wants to increase its profit after tax by 40%, how much should be the percentage rise in EBIT that is required ?

(*4 marks*)

(*b*) X Ltd. is considering the following two alternative financing plans :

(₹)

Particulars	**Plan I**	**Plan II**
Equity shares @ ₹ 10 each	8,00,000	8,00,000
12% Debentures	4,00,000	—
Preference shares @ ₹ 100 each	—	4,00,000
Total	12,00,000	12,00,000

The Earning Before Interest and Tax (EBIT) at indifference point between the plans is ₹ 4,80,000. Corporate tax rate is 30%. Calculate the rate of dividend on preference shares.

(*4 marks*)

(*c*) The following data pertains to ABC Ltd. :

Particulars	**Amount (₹)**
Equity Share Capital (1,00,000 nos.) (Market value)	38,00,000
Preference Share Capital (Book value)	8,00,000
Debentures	50,00,000

Additional Information :

(*i*) Equity Share Capital includes the existing 60,000 shares having current market price of ₹ 40 per share and the balance is net proceeds from the new issue in the current year (issue price of the share is ₹ 40; floatation cost per share is ₹ 5). The projected EPS and DPS for the current year are ₹ 8 and ₹ 5 respectively.

(*ii*) Dividend on preference shares is 12%.

(*iii*) Cost of debentures (pre-tax) is 11%.

(*iv*) Market value of preference shares is ₹ 8,50,000.

(*v*) Corporate tax rate is 35% and dividend tax rate is 10%.

You are required to compute Weighted Average Cost of Capital (WACC) using market values as weights.

(*4 marks*)

(*d*) The Earning per share of a company is ₹ 16. The market capitalization rate applicable to the company is 12.5%. Retained earnings can be employed to yield a return of 10%. The company is considering a payout of 25%, 50% and 75%. Which of these would maximise the wealth of shareholders as per Walter's model of dividend ?

(*4 marks*)

OR (Alternate question to Q. No. 3)

3A. (*i*) A bank is analysing the receivables of Rolly Ltd. in order to identify acceptable collateral for a short-term loan. The company's credit policy is 2/10 net 30. The bank lends 75% on accounts where customers are not currently overdue and where the average payment period does not exceed 10 days past the net period. A schedule of Rolly Ltd. receivables has been prepared and is given below :

Account	**Amount (₹)**	**Days Outstanding**	**Average Payment Period** (in days)
70	50,000	12	20
90	18,000	45	60
110	23,000	22	24
111	4,600	9	10
141	36,000	50	45
161	58,000	16	10
173	28,000	27	48
	2,17,600		

How much will the bank lend on a pledge of receivables, if the bank uses a 10% allowance for cash discount and returns ?

(*4 marks*)

(*ii*) Apple Ltd. and Banana Ltd. have been paying a dividend of ₹ 64 per share each year to their shareholders. Beta coefficient of these two companies is 1.25 and 1.40 respectively. If the risk free return is 6% and market return is 10%, what is the prediction about share price of these two entities ?

(*4 marks*)

(*iii*) A portfolio manager has the following five stocks in his portfolio :

Security	**No. of Shares**	**Price/Share (₹)**	**Beta**
A	10,000	50	1.2
B	5,000	20	2.0
C	8,000	25	0.7
D	1,000	100	1.0
E	500	200	1.3

Required :

(*a*) Calculate Portfolio Beta.

(*b*) If the manager wants to reduce the beta to 0.8, how much of risk free investment should he bring in ? What will be the new portfolio ?

(*4 marks*)

(*iv*) A firm purchases 4,000 units of a particular item per annum at ₹ 40 per unit. Ordering cost is ₹ 100 per order and inventory carrying cost is 12.5%.

Required :

(*a*) Determine optimal order quantity.

(*b*) If a 3% discount is offered by the supplier for purchase in lot of 1,000 or more, should the firm accept the offer ?

(*4 marks*)

4. (*a*) A customer with whom the bank had entered into 3 months forward purchase contract for Swiss Francs 20,000 at the rate of ₹ 74.25 comes to the bank after two months and requests cancellation of the contract. On this date, the rates prevailing are :

Spot	₹/SF 74.30–74.35
1 month forward	₹/SF 74.45–74.52

If the bank agrees to his request, what is the loss or gain to the customer on cancellation ?

(*b*) Mr. Neel holds share of AP Ltd. These shares are currently traded at ₹ 50. In a year's time, it is expected that it will be either ₹ 40 or ₹ 60. Government of India bonds carry interest rate of 8% p.a. What is the value of a call option with an exercise price of ₹ 52 ?

(*c*) An investor buys 500 shares of X Ltd. @ ₹ 210 per share in the cash market. In order to hedge, he sells 300 futures of X Ltd. @ ₹ 195 each. Next day, the share price and futures decline by 5% and 3% respectively. He closes his position next day by counter-transactions. Find out his profit or loss.

(*d*) Mitsubishi Ltd. is operating in Japan and dealing with Zen Ltd. in India. The payment is due three months from the date of invoice and the invoice value is Yen 108 lakh. At today's spot rate, it is equivalent to ₹ 66,96,000. It is anticipated that the exchange rate will decline by 10% over the three months period, and in order to protect the Yen payments, the importer proposes to take appropriate action in the foreign exchange market. The three-month forward rate is presently quoted at 1.48 Yen per Rupee. You are required to calculate the expected loss, and to show how it can be hedged by a forward contract ?

(*4 marks each*)

5. (*a*) Varun Ltd. is evaluating a project whose life will not fall below 2 years, involving production and sale of 2,60,000 units of canned pineapple tins at the selling price of ₹ 100 per unit. The following cash flows have been estimated :

Particulars	**Amount (₹ '000s)**		
	Year 0	**Year 1**	**Year 2**
Initial Investment	(28,000)		
Variable costs		(8,000)	(8,000)
Cash inflow		26,000	26,000
Net cash flow	(28,000)	18,000	18,000

The cost of capital is 10%. **Required :**

(*i*) Can the project be accepted ?

(*ii*) Measure the sensitivity of the project to change in the following variables :

(*a*) Initial Outlay

(*b*) Sales Volume

(*c*) Selling Price

(*d*) Variable Costs

(*e*) Discount Rate.

(*iii*) Name the variable to which the project is most sensitive and least sensitive.

(*8 marks*)

(*b*) As an Investment manager, you are given the following information :

Investment in equity share of	**Expected Return (%)**	**Standard Deviation (%)**	**Beta**
A Ltd.	22%	40%	0.86
B Ltd.	24%	38%	1.24

The correlation coefficient between the returns of two stocks is 0.72. The standard deviation of the market return is 20%. **Required :**

(*i*) Is investing in B Ltd. better than A Ltd. ?

(*ii*) If you invest 70% in A Ltd. and 30% in B Ltd., what is your expected rate of return and standard deviation ?

(*iii*) What is the rate of return on market portfolio and what is risk-free rate ?

(*iv*) What is beta of portfolio, if weights of A Ltd. and B Ltd. are 70% and 30% respectively ?

(*8 marks*)

6. From the following information provided, you are required to calculate the working capital requirement for the year for the company. Present your calculation in a Tabular Form :

(*i*)	Annual Sales ₹ 46.80 lakhs	:	78,000 units
	25% Cash Sales and balance on credit		
(*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*) Finished goods will be valued at total cost.

(*viii*) Debtors are allowed credit for 4 weeks.

(*ix*) Creditors allow 4 weeks credit.

(*x*) Wages are paid bimonthly i.e. by the 3rd week and by the 5th week for the 1st & 2nd weeks and the 3rd & 4th weeks respectively.

(*xi*)	Time lag in payment of overheads	:	2 weeks
(*xii*)	Cash-in-hand required	:	₹ 50,000

(*xiii*) It is assumed that production is carried on evenly throughout the year and wages and overheads accrue similarly.

(*xiv*) Calculation to be based on 52 weeks in a year.

(*16 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

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