335

Roll No.....

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

Total number of questions : 6 ***Total number of printed pages : 11***

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*) The interest rate given by a bank for deposits and the repo rate are the decisive factors in the calculation of Marginal Cost of Fund based Lending Rate (MCLR).

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

(*c*) Sensitivity analysis does not make any decision of itself.

(*d*) ''To the borrowers, securitization does not matter for what they get is loan and to them it makes no difference as to hold the claim.'' Comment with suitable example.

(*5 marks each*)

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

2. Distinguish between the following :

(*a*) Average Accounting Rate of Return and Internal Rate of Return.

(*b*) Spot contract and Forward contract.

(*c*) Leasing and Hire purchase.

(*d*) Assets Backed Securitization (ABS) and Future Flow Securitization (FFS).

(*4 marks each*)

OR (Alternative question to Q. No. 2)

2A. (*i*) Explain the categories of Private Equity Investment.

(*ii*) Explain the conditions to be fulfilled to start the trading of derivatives on stock exchange platform.

(*iii*) What are the skills that forex manager must have for effective management of forex transactions ?

(*iv*) The capital structure is significant for the overall ranking of the firm in the industry group. Discuss.

(*4 marks each*)

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

3. (*a*) Neel Ltd. has supplied the following data :

Operating Leverage 2.5; Financial Leverage 3; EPS ₹ 30; market price per share ₹ 225; and capital 20,000 shares. It is proposed to raise a loan of ₹ 50,00,000 @ 18% p.a. for expansion. After expansion, sales will increase by 25% and fixed cost ₹ 3,00,000.

You are required to work out the market price per share (MPS) after expansion, assuming tax rate @ 50%. (*4 marks*)

(*b*) Sanman Mutual Fund has the following assets in scheme stargrowth at the close of business as on 31st March, 2020 :

Company	**No. of Shares**	**Market Price per Share (₹)**
A Ltd.	20,000	25
B Ltd.	30,000	350
C Ltd.	38,000	290
D Ltd.	50,000	400

The total number of units of the scheme stargrowth are 10 lakh. The scheme stargrowth has accrued expenses of ₹ 2,00,000 and other liabilities of ₹ 2,50,000.

Calculate the NAV per unit of the scheme stargrowth. (*4 marks*)

(*c*) The quarterly production of a company's product which has a steady market of 20,000 units. Each unit of a product requires 0.5 kg of raw material at a cost of ₹ 20 per kg. The cost of placing an order for raw material is ₹ 100 and inventory carrying cost is 10%.

You are required to calculate :

(*i*) Economic order quantity

(*ii*) Number of order placed in a year. (*4 marks*)

(*d*) The following information is available of a concern. Calculate Economic Value Added (EVA) :

(*i*)	12% Debt capital	₹ 2,000 crores
(*ii*)	Equity capital	₹ 500 crores
(*iii*)	Reserve and Surplus	₹ 7,500 crores
(*iv*)	Risk Free rate	9%
(*v*)	Beta Factor	1.05
(*vi*)	Market rate of return	19%
(*vii*)	Net operating profit after tax	₹ 2,100 crores
(*viii*)	Tax rate	30%

(*4 marks*)

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

Account No.	**Amount (₹)**	**Days of 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		

(*4 marks*)

(*ii*) In the context of CAPM, what is the expected return of security 'j' if it has the following characteristics and if the following information holds for the market portfolio ?

Standard Deviation, Security j	0.20
Standard Deviation, market portfolio	0.15
Expected Return, market portfolio	0.13
Co-relation between possible returns for security j and the market portfolio	0.80
Risk free Rate of Return	0.07

You are required to comment :

(*a*) What would happen to the required return if the standard deviation for the security were higher ?

(*b*) What would happen if the correlation co-efficient were less ?

(*c*) What is the functional relationship between the required return for a security and market risk ?

(*4 marks*)

(*iii*) A rice trader has planned to sell 22,000 kgs. of rice after 3 months from now. The spot price of the rice is ₹ 60 per kg and 3 months future on the same is trading at ₹ 59 per kg. Size of the contract is 1,000 kg. The price is expected to fall as low as ₹ 56 per kg. 3 months hence.

(*a*) What the trader can do to mitigate its risk of reduced profit ?

(*b*) If he decides to make use of future market, what would be the effective realised price for its sale when after 3 months spot price is ₹ 57 per kg and future contract price for 3 months is ₹ 58 per kg ?

(*4 marks*)

(*iv*) Calculate the level of earnings before interest and tax (EBIT) at which the EPS indifference point between the following financing alternative will occur.

(*a*) Equity share capital of ₹ 12,00,000 and 12% debentures of ₹ 8,00,000.

Or

(*b*) Equity share capital of ₹ 8,00,000, 14% preference share capital of ₹ 4,00,000 and 12% debentures of ₹ 8,00,000.

Assume corporate tax is 35% and par value of equity share, preference shares and debentures are ₹ 100 in each case.

(*4 marks*)

4. (*a*) A Company is considering two financial alternatives to Finance its expansion plan to ₹ 1.00 crore.

First alternative : by issue of equity shares @ ₹ 12.50.

Second alternative : by issue 14% debentures.

Tax to be considered at 40%.

Its present capital structure consists of equity shares of ₹ 20,00,000 (face value ₹ 10) and 8% debentures of ₹ 50,00,000.

Expected price earning ratio in case of :

first alternative is – 14

Second alternative is – 12.

You are required to calculate the indiffence point at which market price of share under both alternatives will be same.

(*4 marks*)

(*b*) A group of customer wants to enter into a contract with you to buy goods worth ₹ 20 lakh, deliveries to be made in four equal quarterly instalments. Sales price ₹ 200, variable cost ₹ 100. Additional expenditure ₹ 10,000 p.a. 15% of amount of bills would be received after 30 days, 25% after 60 days, 40% after 90 days and 20% after 100 days.

Assuming an opportunity cost of 20% of funds locked up in account receivables, will it be desirable to accept the new proposals ? Assume 360 days in a year.

(*4 marks*)

(*c*) Companies U and L are identical in every respect, except that U is unlivered while L is livered. Company L has 20 lakh of 8% debentures outstanding.

Assume that :

(*i*) All the MM assumptions are met.

(*ii*) The tax rate is 50%.

(*iii*) EBIT is ₹ 6.00 lakh.

(*iv*) Equity capitalisation rate for company U is 10%.

What would be the value for each firm according to MM's approach ?

(*4 marks*)

(*d*) Leading and Lagging technique is a general protection measure for Foreign Exchange Risk Exposure Management. Explain.

(*4 marks*)

5. (*a*) The following results are expected by XYZ Ltd. by quarters next year :

(Figures in '000)

Quarter	**1**	**2**	**3**	**4**
Sales	7,500	10,500	18,000	10,500
Cash payments :				
Production costs	7,000	10,000	8,000	8,500
Selling, adm. and other costs	1,000	2,000	2,900	1,600
Purchases of plant and other fixed assets	100	1,000	2,100	2,100

Debtors at the end of a quarter are one-third of sales for the quarter. The opening balance of debtors is ₹ 30,00,000. Cash on hand at the beginning of the year is ₹ 6,50,000 and the desired minimum balance is ₹ 5,00,000. Borrowings are made at the beginning of quarters in which the need will occur in multiples of ₹ 10,000 and are repaid at the end of quarters. Interest charges may be ignored. You are required to prepare :

(*i*) A cash budget by quarters for the year, and

(*ii*) State the amount of loan outstanding at the end of the year.

(*8 marks*)

(*b*) Excel Operations Ltd. is proposing to replace its fully depreciated machine by a new one costing ₹ 1,50,000. The current market value of old machine is ₹ 20,000 and the salvage value after six years is zero. The post-tax salvage value of the new machine after six years is expected to be ₹ 16,000. With the use of the new machine, sales are expected to increase by ₹ 20,000 per annum and operating expenses to decrease by ₹ 12,000 per annum. If the company follows a 30% WDV depreciation policy, has a marginal cost of capital of 12% and attracts a marginal tax rate of 30%, should the old machine be replaced or not based on six years calculations ?

P.V. factors @ 12% for six years are as follows :

Year	1	2	3	4	5	6
P.V. Factors	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066

(*8 marks*)

6. Fortune Ltd. plans to manufacture and sell 400 units of electronic appliances per month at a price of ₹ 600 each. The ratios of cost to selling price are as follows :

Raw Material	30%
Packing Material	10%
Direct Labour	15%
Direct Expenses	5%

Fixed overhead are estimated at ₹ 4,32,000 per annum.

The following norms are maintained for inventory management :

Raw Material	30 days
Packing Material	15 days
Finished goods	150 units
Work-in-progress	7 days

Other details are :

(*a*) Credit sales represent 80% of total sales and dealers enjoy 30 days credit. Debtors may be calculated on sales basis.

(*b*) Creditors allow 21 working days credit for payment.

(*c*) Lag in payment of overhead and expenses are 15 working days.

(*d*) Cash requirement to be 10% of total current assets (excluding cash balance).

(*e*) Working days in a year are taken as 300 days.

(*f*) Degree of completion is 100% for Raw Material and 50% of other expenses.

Calculate the net working capital required and the maximum permissible bank finance under second method of financing as per Tandon Committee norms.

(*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

Contd. .....

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