

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.
5. Round of the working upto two decimal points, and final answers in integer only.

1. Comment on the following :

- (a) Little-Mirrlees method has suggested the valuation of project investment at shadow prices of resources to correct distortions due to market imperfections.
- (b) The single model in relation to the multi index model.
- (c) NSCCL has developed a comprehensive risk containment mechanism for the F&O segment.
- (d) The treasury function is concerned with management of funds at the micro level, while the financial management function is an integral part of the management.

(5 marks each)

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

2. Distinguish between the following :

- (a) Liquidity and profitability
- (b) Netting and matching in management of forex
- (c) Technical and financial viability of a project
- (d) Long-term capital budget and short-term capital budget.

(4 marks each)

: 2 :

OR (Alternate question to Q. No. 2)

- 2A. (i) Explain the statement : “There are many reasons for participating in foreign exchange including facilitating commercial transactions, corporations converting their profits, or hedging against future price drops.”
- (ii) “Modigliani-Miller theory amplifies that the value of the levered firm is same as the value of the unlevered firm”. Elaborate the assumptions, leading to the substantiation of the proposition.
- (iii) Mention the types of deductions and tax incentives available to the corporates, bearing on the financial decisions making process of a firm.
- (iv) Explain the role of parties involved in the process of securitisation of debt.

*(4 marks each)**Attempt all parts of either Q. No. 3 or Q. No. 3A*

3. (a) The following details are provided by the CFO of the Viju Ltd., to his newly appointed Executive Assistant. This information is pertaining to one of the main competitor of Viju Ltd. From the given information, work out the income statement of competitor of Viju Ltd. :

Financial leverage	2
Operating leverage	3
Interest charges per annum	₹ 20 lakh
Corporate tax rate including cess	40%
Variable cost as a percentage of sales	60%

(4 marks)

: 3 :

- (b) Padmavati Corporation plans to enhance assets by 50% to support the expansion plan. The management of Padmavati Corporation has alternatives available to finance the expansion project : either a 12% debt issue or an issue of equity shares with premium at the rate of 20%. If the expansion plan is implemented, it would result into sales of ₹ 8 crore. The total cost excluding interest would be maintained at the level of 90%. The Statement of Financial Position and Income Statement of Padmavati Corporation are reproduced hereunder.

Statement of Financial Position as on 31st December, 2018

Particulars	Amount ₹
<i>Equity and Liabilities :</i>	
10 lakh Equity shares	1,00,00,000
Retained earnings	60,00,000
11% Debentures	40,00,000
<i>Assets :</i>	2,00,00,000

Income Statement for the year ended 31st December, 2018

Particulars	Amount ₹
Sales	6,00,00,000
Total cost (excluding interest)	5,40,00,000
Interest	4,40,000
Tax rate	50%
Earnings after tax	27,80,000

The market analysts, are of the view that, if the expansion is financed by debt, then Price-earnings ratio will fall from 7.50 to 5.00. You are required to calculate :

- (i) Earnings per share for each alternative of financing.
(ii) Market price per share for each alternative of financing.

(4 marks)

: 4 :

- (c) You are being appointed as a Management consultant by Gramin Ltd., and the following information is provided to you, by the management of Gramin Ltd.

Gramin Ltd. has been incorporated and commenced the business before one year ago, with an equity capital of ₹ 20 lakh, having a face value of ₹ 100 for each equity share. The following information is available, for the first year of operation :

Price-earnings ratio	12.50
Earnings of the Gramin Ltd. for the year just ended	2,00,000
Dividend paid by Gramin Ltd.	1,50,000

The Gramin Ltd. is expecting to maintain the current rate of earnings on investments. You are required to answer the following, by taking into consideration the Walter's model.

- (i) What is the price per share, based on present dividend pay-out policy ?
- (ii) Is the Gramin Ltd.'s Dividend pay-out ratio is optimal or not ?
- (iii) What would the market price per share, if the optimal dividend pay-out ratio would have been maintained ?

(4 marks)

- (d) Romfen Ltd., is involved in the manufacturing of ancillary parts required by automobile manufacturer. One of the main customer of Romfen Ltd., is Patru Ltd. As per the agreement between them, Romfen Ltd. has to supply 4,000 units of product named as Honky per month to Patru Ltd., regularly and without any interruptions. To produce the Honky for each unit, one unit of the component Jivu is needed costing ₹ 20 per unit. The Procurement department's expenses involved in the administering of the one order works out to ₹ 120. The company's cost of capital is 10% per annum. You are required to calculate the following :

- (i) Economic Order Quantity
- (ii) Total inventory holding cost comprises cost of ordering and cost of carrying.

(4 marks)

: 5 :

OR (Alternate question to Q. No. 3)

- 3A. (i) Nirupa, an Investment Advisor, is on the task to work out the expected rate of return for a share of Manushrut Ltd. You are required to help her, based on the following information :

Beta value	1.50
Risk free rate of return	6%
Rate of return from market portfolio	12%

She has also raised the question to you that, if the Alpha value is 1.5, then what may be the actual return from the share of Manushrut Ltd. ? Also, prepare a note, to indicate the significance of alpha value in the investment market.

(4 marks)

- (ii) The Managing Director, Namikumar, of Rajula Ltd., is inclined to relaxing the credit policy, to increase the sales turnover.

Management accountant of Rajula Ltd. has submitted the profit plan based on Sales of ₹ 10 lakh, and an accounts turnover ratio of 10 times. He has also projected a Profit-volume ratio @ 30%, bad debts ratio @ 1%, and fixed cost at ₹ 50,000. Namikumar, has mentioned that, by relaxation of the credit policy, sales would increase by ₹ 2 lakh. The bad debts ratio will be 2% of total sales, and accounts turnover ratio will be 6 times.

Management accountant is of the opinion that, company's cost of capital is 20% based on working capital limits and opportunity cost of capital. It is the practice of the banker to allow the working capital limits based on total sales value and to consider the debtors at sales value.

You are required to advise Namikumar, whether to move for relaxation of the credit policy or not.

(4 marks)

: 6 :

(iii) Following information has been available from the finance department of the Royal Industries :

- (1) The average receivable period is 45 days, while the average payable period is 30 days.
- (2) The average inventory holding period is 75 days.
- (3) The operating cash expenses of Royal Industries are ₹ 120 lakh annually at a constant rate.
- (4) Return on investment is 15%.
- (5) Number of days in a year are 360.

From the above information, compute :

- (a) The cash cycle period in days, and cash turnover in terms of months.
- (b) Minimum amounts of cash to be maintained to meet the liability of payments as and when due and payable.
- (c) The savings in terms of interest cost if the management successfully reduces the inventory holding period by 30 days.

(4 marks)

(iv) Aaya Inc., a UK company expects to receive Singapore dollars (S\$) 8,00,000, six months from now. The current spot rate quoted by banker of Aaya Inc., is S\$ 2.20 per Sterling Pound (£). The rate of interest prevailing in the Singapore money market is 14%, while it is 11% in UK money market.

From the above information, answer the following :

- (a) Calculate forward rate to be quoted today, that is applicable at the end of six months' from now, based on interest rate parity theory.
- (b) Evaluate the gain or loss to Aaya Inc., at the end of six months if forward contract entered into, and £ would be (1) gain by 4% annualised, (2) lost by 2% annualised or (3) remains stable at present level.

(4 marks)

: 7 :

4. (a) Katfab Ltd., is facing the problem with respect to management of overseas transactions, which are denominated in the US \$. The finance executive of Katfab Ltd. approached the banker, to deal with the transactions, and the following information was provided by the banker :

Spot rate ₹/US\$ 66.00 – 25

Forward rate, applicable for end of three months from now ₹/US\$ 67.00 – 50

From the above information, you are required to answer the following questions :

- (i) By what percentage will the dollar currency change, over the next three months ? (Answer with respect to ask rate)
- (ii) By what percentage will the dollar currency change, over the next three months ? (Answer with respect to bid rate)
- (iii) What would be the value of export transactions in terms of US \$, if expected value would be ₹ 45 lakh, at the end of three months' from now ?
- (iv) How much in terms of Indian Rupees would be needed, to fulfil the immediate remittance, of US \$ 2,20,000 ?
- (b) Ragina Mutual Fund, wants to hedge its portfolio of shares of ₹ 15 crore using the NSE-NIFTY Index futures. The contract size is 100 NIFTY. The Index is currently quoted at 9,120. The beta value of the portfolio is 0.80, while of market is 1.00. Calculate the number of future contracts to be traded by Ragina Mutual Fund.
- (c) Critically evaluate the statement : “Investment decisions are directly related to financial decisions influenced by the cost of capital”.
- (d) The methodology used for storing the certificates are either dematerialisation or immobilisation. Explain.

(4 marks each)

5. (a) Pawan Ltd. has a machine having a balance economic life of five years, which costed ₹ 2,00,000 and has a book value of ₹ 80,000. A new machine with same capacity, costing ₹ 4 lakh is available in the market. One of the estimates from technical personnel indicated, that through the acquisition of a new machine, a saving in variable cost can accrue to the extent of ₹ 1,40,000 per annum. The economic life of the new machine will be 5 years, and can fetch a scrap value of ₹ 40,000.

The rate of income tax would be 46% including cess, and other taxes, as envisaged. The management has fixed the soft capital rationing at the rate of 12% per annum. If the old machine sold today, it would be result in realisation of ₹ 20,000, and will have zero value after five years from now. For the working, you can assume no capital gain tax applicable. You can also ignore the income tax savings on account of depreciation as well as loss on sale of existing machine.

You are required to advise the management, whether to replace the machine or not, as on date ?

- (b) Ajitanad Ltd. has furnished the following information, to work out the weighted average cost of capital of the firm :

Earnings per share	₹ 8
Dividend pay-out ratio	25%
Market price per share	₹ 80
Tax rate	30%
Growth rate of dividend	8%
Additional need of funds	₹ 10,00,000
Additional debt capital as part of total fund requirement	₹ 4,00,000
Cost of debt (before tax) – up to ₹ 2,00,000	10%
Cost of debt (before tax) – beyond ₹ 2,00,000	15%

Compute from the above information,

- (i) After tax cost of equity,
- (ii) After tax cost of debt, and
- (iii) Weighted average cost of capital.

(8 marks each)

6. You have very recently completed a professional course from the national level institute of India. You are being appointed as an Executive Assistant of Managing Director of the newly incorporated company named as Sumati Ltd.

Sumati Ltd. is estimating to have production and sales capacity of 500 units per annum, and would be sold at the rate of ₹ 17,000 per unit. You are required to calculate the following for submission to your boss, and in turn to submit to the banking system as part of project report.

- (1) Percentage of yield on investment;
- (2) Percentage of profit on sales; and
- (3) Rate of cash generation per annum before tax.

Following details are available for the project with an expected production of 250 units, for first year of operation :

A. Investments

Land	₹ 2,00,000
Building	₹ 16,00,000
Plant and machinery	₹ 24,00,000

B. Cost of production for first year of operation

Raw material (A)	₹ 13,00,000
Raw material (B)	₹ 12,52,000
Salaries and wages	₹ 2,70,000
Repairs and maintenance on Plant cost	5%
Repairs and maintenance on Building cost	2%
Depreciation on Plant cost	7%
Depreciation on Building cost	2.5%
Administrative and other expenses	₹ 1,00,000
Steam	₹ 2,24,000
Power	₹ 12,000
Packing drums	₹ 30,000

C. Working capital requirement

Raw material stock (A)	6 months
Raw material stock (B)	3 months
Stock of finished products	1 month
Credit to customers	1 month
Credit from suppliers [only on raw material (B)]	1 month
Cash expenses	1 month

(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	0.7895	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	2.4019	3.0374	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