

Roll No.....

Time allowed : 3 hours

Maximum marks : 100

Total number of questions : 6

Total number of printed pages : 12

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) Application of computer has made it possible to handle large number of operations particularly of repetitive nature.
- (b) Despite of several objections, cost of capital is used as the basis to evaluate investments.
- (c) Treasury management function is important at macro level too.
- (d) The Basel Committee for Bank Supervision (BCBS) has prescribed a set of norms for capital requirement for the Banks for all countries.

(5 marks each)

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

2. Distinguish between the following :

- (a) Corporate Financial Services and Personal Financial Services.
- (b) Sensitivity Analysis and Risk Analysis.
- (c) Forfaiting and Export Factoring.
- (d) Telegraphic Transfer and Mail Transfer.

(4 marks each)

: 2 :

OR (Alternate question to Q. No. 2)

- 2A. (i) What is the United Nation Industrial Development Organisation (UNIDO) approach to Social Cost Benefit Analysis of a project ? Stages need not be discussed.
- (ii) Cost of capital is affected by controllable as well as uncontrollable factors. Explain.
- (iii) According to Securities and Exchange Board of India (SEBI) how many categories of Merchant Banking Organisation exist in India ? Explain the categories.
- (iv) Explain the *four* main systems of International Finance Market which ensure availability of foreign currency.

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

3. (a) The Balance Sheet of MP Ltd. as on 31st March, 2018 is given as under :

Liabilities	Amount (₹)	Assets	Amount (₹)
Equity Share Capital (₹ 10 each)	1,60,000	Fixed Assets	3,00,000
Reserves	80,000	Current Assets	1,00,000
10% Debt	1,20,000		
Current Liabilities	40,000		
Total	4,00,000	Total	4,00,000

Tax rate is 50%

You are required to :

- (i) Likely level of EBIT if the EPS is (a) ₹ 1, (b) EPS is ₹ 3.
- (ii) Financial break-even level.

(4 marks)

: 3 :

(b) The following data pertains to Yagya Ltd. :

Existing Capital Structure :

20 lakh equity shares of ₹ 10 each

Tax Rate 50%

Yagya Ltd. plans to raise additional capital of ₹ 200 lakh for financing an expansion project. It is evaluating two alternative financing plans :

- (i) Issue of 20,00,000 equity shares of ₹ 10 each and
- (ii) Issue of ₹ 200 lakh debentures carrying 14% interest.

You are required to compute indifference point.

(4 marks)

(c) The following is capital structure of a firm :

Source of Finance	Amount (₹)	After Tax Cost (%)
Equity (paid-up) share capital	20,00,000	20
Retained earnings (Reserves)	40,00,000	20
Preference share capital	15,00,000	10
Debt	25,00,000	8
Total	1,00,00,000	

Compute the weighted average cost of capital of the firm, based on the existing capital structure.

(4 marks)

: 4 :

(d) ABC Ltd. had the following Balance Sheet as on 31st March, 2018 :

Liabilities	₹ in crore	Assets	₹ in crore
Equity share capital (100 lakh shares @ ₹ 10 each)	10	Fixed Assets (Net)	25
Reserves & Surplus	2	Current Assets	15
15% Debentures	20		
Current Liabilities	8		
Total	40	Total	40

The additional information are as under :

Fixed cost per annum (excluding interest) ₹ 8 crore

Variable Operating Cost Ratio 65%

Total Assets Turnover Ratio 2.5

Income Tax Rate 30%

You are required to calculate the following :

- Earnings per Share
- Operating Leverage
- Financial Leverage
- Combined Leverage.

(4 marks)

: 6 :

- (iii) Naman Ltd. currently makes all sales on credit and offers no cash discount. It is considering a 2% cash discount for payment within 10 days. The firm's current average collection period is 60 days, sales are 2,00,000 units, selling price is ₹ 30 per unit, variable cost per unit is ₹ 20 and average cost per unit is ₹ 25 at current sales volume.

It is expected that the change in credit terms will result in increase in sales to 2,25,000 units and the average collection period will fall to 45 days. However, due to increased sales, increased working capital required will be ₹ 1,00,000 (it does not take into account the effect on debtors). Assuming that 50% of the total sales will be on cash discount and 20% is the required return on investment, should the proposed discount be offered ? Assume 360 days in a year. Give your assessment.

(4 marks)

- (iv) Raj has recently created his portfolio and he has provided the information given below :

Security	Amount Invested (₹)	Expected Return (%)	Beta
Stock A	10,000	8	0.80
Stock B	20,000	12	0.95
Stock C	30,000	15	1.10
Stock D	40,000	18	1.40

Calculate his expected return from this portfolio. What is the beta of this portfolio ?

Comment on this portfolio also.

(4 marks)

: 7 :

4. (a) A Thai company is expecting to receive US \$ 3 million from its customer in the US after three months. The current spot exchange rate is Baht 33.75/\$ and 90 days forward rate is Baht 35.35/\$. What will be the consequences if the Thai firm :
- (a) Does not cover its exposure.
 - (b) Covers 60% and keeps 40% uncovered.
 - (c) Cover 100% exposure by entering into a forward contract.
- The spot rate at the time Thai company receives payment is Baht 34.10/\$, what is the cost of the forward contract (partial or full) ?

(4 marks)

- (b) Paper Corporation Ltd., have imported 10,000 Nos. cartridges at landed cost in Mumbai, of US \$ 30 each. They have the choice for paying for the goods immediately or in 3 months' time. They have a clean overdraft limit where 18% p.a. rate of interest is charged. Calculate which of the following methods would be cheaper to Paper Corporation Ltd. :
- (a) Pay in 3 months' time with interest @ 15% p.a. and cover risk forward for 3 months.
 - (b) Settle now at a current spot rate and pay interest of the overdraft for 3 months.

The rates are as follows :

INR/\$ Spot 71.25-71.55

3 month swap : 25/35.

(4 marks)

- (c) Determine the intrinsic value for the buyer of an option contract, action to be taken and type of option in the following situations :
- (i) A put option, when the current value of the underlying asset is ₹ 1,400 and the strike price is ₹ 1,482.
 - (ii) A put option when the current value of the underlying asset is ₹ 950 and the strike price is ₹ 950.

: 8 :

- (iii) A call option when the current value of asset is ₹ 1,200 and the strike price is ₹ 980.
- (iv) A call option when the current value of underlying asset is ₹ 1,650 and the strike price is ₹ 1,700.

(4 marks)

- (d) Abhay bought 1000 shares of Panther Ltd. Panther has a beta 1.1 with the Sensex. Each Sensex contract is equal to 50 units. Panther now quotes at ₹ 100 and the Sensex futures is available at 4500 Index points. Required :

- (i) How many futures contracts Abhay will take ?
- (ii) If the price in the spot market drops by 12%, how he will be protected ?

(4 marks)

5. (a) Boat Ltd. has a proposal for manufacturing Mechanised Boats. The project would involve cost of plant at ₹ 750 lakh, installation cost of ₹ 150 lakh and working capital of ₹ 175 lakh. The annual capacity of the plant is to manufacture 30,000 Boats. Price per Boat is ₹ 30,000, with a variable cost ratio of 70%. Cash-fixed cost in the first year, including promotion expenditure of ₹ 180 lakh, is ₹ 630 lakh and is thereafter ₹ 450 lakh each year. The company expects that the plant's capacity utilization over its estimated useful life of five years is as under :

Year	1	2	3	4	5
Capacity utilization %	25	40	50	75	100

Terminal value of the project is ₹ 95 lakh. If the hurdle rate is 12%, and tax rate is 30%, can the project be accepted ? While evaluating, you have to keep in mind that the company has other sources of income against which the losses, if any, from this project can be set off. Project implementation cost to be considered on year 0, and cash flow to start from year I. Consider PVF rate upto three decimal points.

(8 marks)

: 9 :

- (b) An initial outlay of ₹ 24 lakh is contemplated in a project, for which the following cash flow estimates have been prepared :

Year	Net CFAT (₹)	Probability
Year 1	8,00,000	0.30
	7,00,000	0.40
	5,00,000	0.30
Year 2	7,00,000	0.25
	9,00,000	0.35
	10,00,000	0.40
Year 3 to 5	5,20,000	0.45
	6,40,000	0.25
	8,20,000	0.30

Advise whether the project is worthwhile, if the Discount Rate is 17% ? What should be the maximum project cost, if it were to be taken up ?

(8 marks)

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

(a) Cost per unit	(₹)
Raw Material	208
Direct Labour	78
Overheads	156
Total Cost	442
Profit	78
Selling Price per unit	520

: 10 :

- (b) (i) Raw material will be in stock on an average for one month holding.
- (ii) Work in Process will comprise of 100% of material, 50% of wages and overheads for average of half a month.
- (iii) Finished goods will be in stock on average of one month.
- (iv) Credit allowed by suppliers of Raw Material is one month.
- (v) Time lag in payment of wages is 1½ weeks.
- (vi) Time lag in payment of overheads is 1 month.
- (vii) Time lag in payment from Debtors is 2 months.
- (viii) Cash Balance is to be maintained at a minimum of ₹ 4,80,000.
- (c) Level of Activity : Production of 70,000 units per annum. It is to be assumed that production is carried on evenly throughout the year and wages and overheads accrue similarly.
- (d) Calculation to be based on 30 days a month and 52 weeks in a year.
- (e) Finished goods will be valued at Total Cost.

(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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	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