Roll No. ____________________

(Do not write anything on question paper except Roll No.)

[This paper consists of FOUR Pages]

Jagan Institute of Management Studies

End-Term Examination, December 2017 – January 2018

Trimester II – PGDM /PGDM (IB) 2017-19

Financial Management I

ET_PG_IB_FM-I_0201

Time: 3 Hrs. *M. Marks: 70*

INSTRUCTIONS: Attempt any FIVE questions. All questions carry equal marks.

Q 1 **a)** Critically examine any **TWO** of the following:

- i) "IRR in a good method of evaluating a capital budgeting proposal, but it suffers from some limitations".
- ii) "Certainty Equivalents and Risk Adjusted Discount Rate are different in approach to incorporate risk in capital budgeting evaluation process".
- iii) "Time Value of Money is one of the fundamental concepts in Finance".

b) Differentiate any **TWO** of the following:

- i) Operating Leverage and Financial Leverage.
- ii) Mutually Exclusive and Accept- Reject decision situation.
- iii) Internal Rate of Return and Modified Internal Rate of Return. **14**

Q 2 Following information is available in respect of RST Ltd.:

Equity Share Capital (F. V. ₹10)	₹ 40,00,000
12% Pref. Share Capital (F.V. ₹100)	30,00,000
Reserves and surplus	10,00,000
10% Debentures	20,00,000

Equity Shares, on which the company has just paid a dividend of ₹3 per share, are trading at ₹25. Preference Shares and debentures are selling at 90% and 80% respectively. Given the growth rate of the company at 5%, find out:

- i) WACC (BV) and WACC (MV).
- ii) The company has a new project costing ₹ 25,00,000 for which funds can be procured by the issue of 11% Debentures (F.V ₹ 100) at par, Floatation cost being ₹2 per debenture . As a result of this project, the growth rate is expected to go up by 2% from current year. Find out the new WACC (MV) after incorporating the above.
- iii) Is the WACC (MV) going up or down? Explain the reason. **14**

Q 3 XYZ Ltd. is considering the installation of a Machine for its Research and Development Division which would cost ₹50 Lacs. Maintenance Cost ignoring depreciation is expected to be ₹8 Lacs p.a.

Useful life of the system is estimated at 6 yrs., after which the system can be disposed offfor₹3 lac. Tangible benefits to the extent of ₹ 15 lacs p.a. are estimated in the form of savings in operating costs. If the system is installed then office furniture etc. of worth ₹12 lacs will be disposed off (Tax effect of the sale of furniture to be ignored).

Capital Expenditure on Research and Expenditure attracts 100% write off in the year of purchase for tax purposes. Advise the financial viability of the project given that:

i) Effective tax applicable to firm is 30%,

ii) Minimum Required Rate of Return of the firm is 15%. **14**

Q 4 ABC is evaluating following mutually exclusive proposals, X and Y, details of which are given as follows:

	Year	**Project X**	**Project Y**
Cost	0	1,12,000	92,000
Cash Flows	1	10,000	50,000
	2	20,000	40,000
	3	30,000	20,000
	4	45,000	10,000
	5	60,000	10,000

Compute Internal Rate of Return of these projects and advise the firm. **14**

Q 5 Following information is available in respect of X Ltd. And Y Ltd., both of which belong to same risk class:

	X Ltd.	**Y Ltd.**
EBIT	₹ 8,00,000	₹8,00,000
10%Debentures	₹10,00,000	--
k_e	25%	25%

Find out the value of these firms under NI approach.

An investor holding 15% of Equity Shares of overvalued firm attempts to shift over to undervalued firm in order to make profit out of arbitrage. Explain how under MM model, the arbitrage activity will be beneficial to the investor. Ignore taxes.

If both firms belong to tax slab of 30%, find out value of these firms under MM Model (with taxes). **14**

Q 6 A Company is considering the replacement of its existing machine which is obsolete arid unable to meet the rapidly rising demand for its product. The company is faced with two alternatives: (i) to buy Machine A which is similar to the existing machine or (ii) to go in for Machine B which is more expensive and has much greater capacity. The cash flows at the present level of operations under the two alternatives are as follows:

Cash flows (in lakhs of ₹) at the end of year

	0	1	2	3	4	5
Machine A	-25	-	5	20	14	14
Machine B	-40	10	14	16	17	15

The company's cost of capital is 10%. The finance manager tries to evaluate the machines by calculating the following:

i) Net Present Value.
ii) Profitability Index.
iii) Discounted Payback Period.

At the end of his calculations, however, the finance manager is unable to make up his mind as to which machine to recommend. You are required to make these calculation and in the light thereof to advise the finance manager about the proposed investment. **14**

Q 7 RST Ltd. is faced with the problem of choosing between two mutually exclusive projects. Project A requires a cash outlay of ₹1,00,000 and cash running expenses of ₹35,000 per year. On the other hand, Project B will cost ₹1,50,000 and requires cash running expenses of ₹20,000 per year. Both the machines have eight-year life. Project A has a ₹ 4,000 salvage value and Project B has ₹14,000 salvage values.

The company's tax rate is 30%. Assume depreciation on straight line basis and no tax on salvage values of assets. Find out the Initial, Annual and Terminal cash flows on incremental basis. Given the minimum required return of the firm at 12%, which machine the firm should take up? **14**

****

Present Value Factor, $PVF_{(r,n)}$

Year	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.848	0.840
2	0.842	0.826	0.812	0.797	0.783	0.770	0.756	0.743	0.731	0.718	0.706
3	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593
4	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499
5	0.650	0.621	0.594	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419
6	0.596	0.565	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352
7	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296
8	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249
9	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.226	0.209
10	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176

Present Value Annuity Factor, $PVAF_{(r,n)}$

Year	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.848	0.840
2	1.759	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547
3	2.531	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140
4	3.240	3.170	3.102	3.037	2.975	2.914	2.855	2.798	2.743	2.690	2.639
5	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058
6	4.486	4.355	4.231	4.111	3.998	3.889	3.785	3.685	3.589	3.498	3.410
7	5.033	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706
8	5.535	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954
9	5.995	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163
10	6.418	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339

****