TOPICS : Capital Budgeting, Risk Analysis in Capital Budgeting & Dividend Decision

QUESTION NO.1 **(10 MARKS)**

Suppose MVA Ltd. is considering two Project A and Project B for investment. The cash flows associated with these projects are as follows:

Year	Project A	Project B
0	(5,00,000)	(5,00,000)
1	7,50,000	2,00,000
2	0	2,00,000
3	0	7,00,000

Assuming Cost of Capital equal to 12%, **ANALYSE which project should be accepted as per NPV Method and IRR Method?**

QUESTION NO.2

A. With the help of following figures **CALCULATE the market price** of a share of a company by using:

(i) Walter's formula

(ii) Dividend growth model (Gordon's formula)

Earnings per share (EPS)	Rs. 10
Dividend per share (DPS)	Rs. 6
Cost of capital (k)	20%
Internal rate of return on investment	25%
Retention Ratio	40%

(5 MARKS)

A. The following figures are collected from the annual report of XYZ Ltd.:

Net Profit	Rs. 30 lakhs
Outstanding 12% preference shares	Rs. 100 lakhs
No. of equity shares	3 lakhs
Return on Investment	20%
Cost of capital i.e. (K_e)	16%

CALCULATE price per share using Gordon's Model when dividend pay – out is (i) 25%; (ii) 50% and (iii) 100%.

(5 MARKS)

QUESTION NO.3

A. An enterprise is investing Rs. 100 lakhs in a project. The risk – free rate of return is 7%. Risk premium expected by the Management is 7%. The life of the project is 5 years. Following are the cash flows that are estimated over the life of the project.

Year	Cash Flows (Rs. in lakhs)
1	25
2	60
3	75
4	80
5	65

CALCULATE Net Present Value of the project based on Risk free rate and also on the basis of Risks adjusted discount rate.

(6 MARKS)

B. **Determine the risk adjusted net present value** of the following projects :

	X	Y	Z
Net Cash outlays (Rs.)	2,10,000	1,20,000	1,00,000
Project life	5 years	5 years	5 years
Annual Cash inflow (Rs.)	70,000	42,000	30,000
Coefficient of variation	1.2	0.8	0.4

The Company selects the risk – adjusted rate of discount on the basis of the coefficient of variation :

Coefficient of Variation	Risk – Adjusted Rate of Return	P.V. Factor 1 to 5 years At risk adjusted rate of discount
0.0	10%	3.791
0.4	12%	3.605
0.8	14%	3.433
1.2	16%	3.274
1.6	18%	3.127
2.0	22%	2.864
More than 2.0	25%	2.689

(4 MARKS)

QUESTION NO.4   **(10 MARKS)**

Jambavan Ltd has a Capital of Rs. 10,00,000 in Equity Shares of Rs. 100 each. The Shares are currently quoted at par. The Company proposes to declare a dividend of Rs. 10 per Share at the end of the current financial year. The capitalization rate for the risk class of which the Company belongs is 12%.

1. What will be the Market Price of the Share at the end of the year, if Dividend is not declared ?
2. What will be the Market Price of the Share at the end of the year, if Dividend is declared?
3. Assuming that the Company pays the Dividend and has Net Profits of Rs. 5,00,000 and makes new investments of Rs. 10,00,000 during the period, how many new Shares must be issued ? Use the MM Model.
4. Is the Modigliani and Miller Model realistic with respect to valuation ? What factors might mar its validity ?
5. Show how MM Approach affects the value of the firm, if the Dividends are paid and not paid.

QUESTION NO.5   **(10 MARKS)**

Consider the following mutually exclusive projects:

Cash flows (Rs.)					
Projects	C_0	C_1	C_2	C_3	C_4
A	-10,000	6,000	2,000	2,000	12,000
B	-10,000	2,500	2,500	5,000	7,500
C	-3,500	1,500	2,500	500	5,000
D	-3,000	0	0	3,000	6,000

Required:

(i) Calculate the payback period for each project.

(ii) If the standard payback period is 2 years, which project will you select? Will your answer differ, if standard payback period is 3 years?

(iii) If the cost of capital is 10%, compute the discounted payback period for each project. Which projects will you recommend, if standard discounted payback period is (i) 2 years; (ii) 3 years?

(iv) Compute NPV of each project. Which project will you recommend on the NPV criterion? The cost of capital is 10%.What will be the appropriate choice criteria in this case? The PV factors at 10% are:

Year	1	2	3	4
PV factor at 10%(PV/F 0.10, t)	0.9091	0.8264	0.7513	0.6830