

**VPM's**  
**DR VN BRIMS, Thane**  
**Programme: PGDM (2017-19) (Finance)**  
**Fifth Trimester Examination December 2018**

<b>Subject</b>	<b>Advanced Financial Management</b>		
<b>Roll No.</b>		<b>Marks</b>	<b>60 Marks</b>
<b>Total No. of Questions</b>	<b>7</b>	<b>Duration</b>	<b>3 Hours</b>
<b>Total No. of printed pages</b>	<b>4</b>	<b>Date</b>	<b>27.12.2018</b>

**Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.**

Q. 1 (a) A firm has an investment proposal, requiring an outlay of Rs. 8 lakhs. The investment proposal is expected to have two years economic life with no salvage value. In year 1, there is a 0.4 probability that cash inflow after tax will be Rs. 5 Lakhs and 0.6 probabilities that cash inflow after tax will be Rs. 6 lakhs. The probability assigned to Cash Inflow after tax for the year 2 is as follows:

<b>Cash Inflow for year I (Rs.)</b>	<b>5 Lakhs</b>		<b>6 Lakhs</b>	
<b>Cash Inflow for year II (Rs.)</b>	<b>Amount</b>	<b>Probability</b>	<b>Amount</b>	<b>Probability</b>
	2.40 Lakhs	0.2	4 Lakhs	0.4
	3.20 Lakhs	0.3	5 Lakhs	0.5
	4.40 Lakhs	0.5	6 Lakhs	0.1

The firm uses 8% discount rate for this type of investment.

(i) Construct a decision tree for the proposed Investment Project.

(ii) Calculate the expected Net Present value (NPV).

(iii) What Net Present Value will the project yield, if the worst outcome is realized?

(8% discount factor for 1<sup>st</sup> year = 0.9259; 8% discount factor for 2<sup>nd</sup> year = 0.8573). **10 Marks**

(b) Following Financial data are available for PQR Ltd. for the year ending 31<sup>st</sup> March 2018.

<b>Particulars</b>	<b>(Rs. in Lakhs)</b>
8% Debentures	125
10% Bonds (Issued on 1 July 2017)	50
Equity shares (Rs. 10 each)	100
Reserves and surplus	300
Total Assets	600
Assets Turnovers ratio	1.1
Effective tax rate	40%
Operating Margin	10%
Dividend payout ratio	16.67%
Current market Price of share	Rs. 14 (Amount not in Lakhs)
Required rate of return by investors	15%

(i) Draw Income statement for the year

(ii) Calculate its sustainable growth rate

(iii) Calculate the fair price of the Company's share using dividend discount model, and

(iv) What is your opinion on investment in the company's share at current price? **10 Marks**

**Attempt Any FOUR from the Remaining SIX Questions**

**Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) ABC Ltd. has 10 Lakh equity shares outstanding at the beginning of the accounting year 2018. The current market price of the shares is Rs. 150 each. The board of directors of the company has recommended Rs. 8 per share as dividend. The rate of capitalization appropriate to the risk-class to which the company belongs is 12%. Based on the M-M Approach, calculate the market price of the share of the company when the recommended dividend is:

(a) declared; and (b) not declared.

b) A project involves an outlay of Rs. 1,00,000. Its expected cash inflow at the end of year 1 is Rs. 40,000. Thereafter it decreases every year by Rs.2,000. It has an economic life

of 6 years. The certainty equivalent factor is (alpha)  $a(t) = 1 - 0.05t$ . Calculate the NPV of the project if the risk free return is 10%.

c) The following information is collected from the annual report of Joy Ltd.:

Profit before tax = Rs. 2.50 crores.

Tax rate = 40%

Retention ratio = 40%

Number of outstanding shares = 50,00,000

Equity capitalization rate = 12%

Rate of return on investment = 15%

What should be the market price per share according to Gordon's model of dividend policy?

**Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) The following information is available in respect of Sober Ltd.:

No. of shares outstanding = 1 Lakh

EPS = Rs. 4

Dividend payout per share = Rs.2.4

Equity capitalization rate = 12%

Rate of return on investment = 15%

Calculate:

(i) Market value per share as per Walter's Model.

(ii) Dividend payout ratio to keep share price at Rs.40.

(iii) Optimum dividend payout ratio as per Walter's Model.

(iv) Market value per share at the optimum dividend payout ratio based on Walter's Model.

b) Imperial Industries Ltd. has total assets worth Rs.800 Lakhs and spontaneous liabilities of Rs.250 Lakhs. Its sales at present are Rs.1000 Lakhs. The net profit margin is 10% and the dividend pay-out ratio is 40%. The sales are growing and in the forthcoming period the consequent growth in its assets will be financed entirely by an increase in its spontaneous liabilities and an increase in its retained earnings without resorting to any external financing in any form. Determine the growth rate that can be financed by the company without resorting to external finance.

c) The dividends on the equity shares of Sun Industries Ltd (SIL) have been experiencing a growth rate of 12% p.a. in the recent years which is considered to be above normal. The above normal growth rate in dividends is expected to continue for four years after which the growth rate will reduce to 5% p.a. which will continue indefinitely. The company has recently announced a dividend of Rs. 2.00 per share. The required rate of return on the equity shares is 15%. You are required to find out the value of the equity share for SIL Ltd.

**Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) ABC Ltd. issued 9%, 5 year Bonds of Rs. 1,000 each having a maturity of 3 years. The present rate of interest is 12% for one year tenure. It is expected that Forward rate of interest for one year tenure is going to fall by 75 basis points and further by 50 basis points for every next year in future for the same tenure. This bond has a beta value of 1.02 and is more popular in the market due to less credit risk. Calculate: i) Intrinsic value of bond

ii) Expected price of bond in the market.

b) A share of Tension-free Economy Ltd. is currently quoted at a price earnings ratio of 7.5 times. The current retained earning being 37.5% is Rs. 3 per share. Calculate:

i) The company's cost of equity, if expected rate of return is 12%.

ii) Market price of share, if anticipated growth rate is 13% p.a. with the same cost of capital.

iii) Market price of share, if the company's cost of capital is 18% and anticipated growth rate is 15% p.a., assuming other conditions remaining the same.

- c) Delta Corp. is considering an investment in one of following two mutually exclusive proposals: Project A: Requiring initial outlay of Rs. 1,80,000 Project B: Requiring initial outlay of Rs. 1,60,000. The certainty equivalent approach is employed in evaluating risky investment. The current yield on Treasury bill is 5% and the company uses this as riskless rate. Expected values of net cash inflow with their respective certainty equivalents are:

Year	Project A		Project B	
	Cash inflow in Rs.	Certainty Equivalents	Cash inflow in Rs.	Certainty Equivalents
1	92,000	0.8	92,000	0.9
2	1,02,000	0.7	92,000	0.8
3	1,12,000	0.5	1,02,000	0.6

- i) Which Project should be acceptable to the Company?  
 ii) Which Project is riskier and why? Explain.  
 iii) If the company uses the risk adjusted discount rate method, which project would be discounted with higher rate?

**Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

- a) Discuss "Sensitivity Analysis" in project appraisal.  
 b) (i) Name 2 important ratios considered by banks while sanctioning long term credit to clients.  
 (ii) Name 3 financial parameters considered while identifying stage of industrial sickness of a firm.  
 c) Explain the relevance of 'EFR' in financial planning.

**Q6) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

- a) Determine the risk-adjusted net present value of the following projects:

Projects	A	B	C
Net Cash Outlays	1,00,000	1,20,000	2,10,000
Project Life	5 Years	5 Years	5 Years
Annual Cash Inflow	30,000	42,000	70,000
Co-efficient of variation	0.4	0.8	1.2
Risk-adjusted discount rate	12%	14%	16%
PV factor 1 to 5 years at risk-adjusted discount rate	3.605	3.433	3.274

- b) Bright Computers Ltd. is planning to issue a debenture series with a face value of Rs. 1,000 each for a term of 10 years with the following coupon rates:

Years	Rates
1-4	8%
5-8	9%
9-10	13%

The current market rate on similar debenture is 15% p.a. The company proposes to price the issue in such a way that a yield of 16% compounded rate of return is received by the investors. The redeemable price of the debenture will be at 10% premium on maturity. What should be the issue price of debenture? (PV @ 16% for 1 to 10 years are: 0.862, 0.743, 0.641, 0.552, 0.476, 0.410, 0.354, 0.305, 0.263, and 0.227 respectively).

- c) Honey Corp. follows a current dividend policy of distributing 40% of its earnings. The share of the company is trading at Rs.200. The management of the corporation is of the opinion that an increase in the dividend payout from current 40% to either 50% or 60% would increase the value of the firm or provide better returns to the investors. Assume that the firm continues to remain in the same business and the expected earnings is Rs.40 per share in the coming year. Examine the shareholders return if the Honey Corp. changes its dividend payout to (i) 50% and (ii) 60%. What conclusion would you draw from the results?

**Q7) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

- a) Rich Industries Ltd. closes its accounts on 31<sup>st</sup> Dec. every year. Following are the

financial statements of the company.

**Balance sheet as on 31<sup>st</sup> Dec. 2017**

Liabilities	Rs. in Lakhs	Assets	Rs. in Lakhs
Equity			
(Shares of Rs.10 each)	350	Fixed Assets	900
Reserves	250	Inventories	400
Long Term Loans	500	Debtors	400
Short Term Loans	200	Cash	200
Creditors	400		
Provision	200		
<b>Total</b>	<b>1900</b>	<b>Total</b>	<b>1900</b>

**Profit & Loss A/c for the year (Rs. in Lakhs)**

Net Sales	1250.00
PBT	288.50
Tax	101.00
PAT	187.50
Dividends paid	37.50

Sales for the year 2018 are expected to be up by 18%. Additional capital requirement will be met by issue of preference shares (25% of the requirement), Term Loans (50% of the requirement) and the balance from short term loans. Calculate: (i) External Financial Requirement (EFR)

(ii) Amount of EFR obtained in the form of short term loans

- b) MNL Ltd. is considering investment in one of three mutually exclusive projects: AB, BC, and CD. The company's cost of capital is 15% and the risk-free interest rate is 10%. The income tax rate for the company is 34%. MNL has gathered the following basic cash flows and risk index data for each project:

Projects	AB	BC	CD
Initial Investment	12,00,000	10,00,000	15,00,000
Cash Inflows-Year			
1	5,00,000	5,00,000	4,00,000
2	5,00,000	4,00,000	5,00,000
3	5,00,000	5,00,000	6,00,000
4	5,00,000	3,00,000	10,00,000
Risk Index	1.80	1.00	0.60

Using the Risk Adjusted Discount Rate, determine the risk adjusted NPV for each of the project. Which project should be accepted by the company?

- c) A Ltd. has issued convertible bonds, which carries a coupon rate of 14%. Each bond is convertible into 20 equity shares of the company A Ltd. The prevailing interest rate for similar credit rating bond is 8%. The convertible bond has 5 years maturity. It is redeemable at par at Rs.100. The relevant PV is as follows:

Present Values	T1	T2	T3	T4	T5
PVIF (0.14,t)	0.877	0.769	0.675	0.592	0.519
PVIF (0.08,t)	0.926	0.857	0.794	0.735	0.681

Calculate (up to 3 decimals):

- (i) Current Market Price of the bond, assuming it being equal to its fundamental value.
- (ii) Minimum market price of equity share at which bond holder should exercise conversion option.
- (iii) Duration of the bond.