QUESTION 1 IS COMPULSORY. ATTEMPT ANY FOUR OUT OF REMAINING FIVE QUESTIONS.

WORKING NOTES SHOULD FORM PART OF ANSWER.

QUESTION 1(a) **(8 MARKS)**

Reliable Industries Ltd. (RIL) is considering a takeover of Sunflower Industries Ltd. (SIL). The particulars of 2 companies are given below :

Particulars	Reliable Industries Ltd.	Sunflower Industries Ltd.
Earnings After Tax (EAT)	Rs. 20,00,000	Rs. 10,00,000
Equity shares O/s	10,00,000	10,00,000
Earnings per share (EPS)	2	1
PE Ratio (Times)	10	5

Required :

(i) What is the market value of each Company before merger ?

(ii) Assume that the management of RIL estimates that the shareholders of SIL will accept an offer of one share of RIL for four shares of SIL. If there are no synergic effects, what is the market value of the Post – merger RIL ? What is the new price per share ? Are the shareholder of RIL better or worse off than they were before the merger ?

(iii) Due to synergic effects, the management of RIL estimates that the earnings will increase by 20%. What are the new post – merger EPS and Price per share ? Will the shareholders be better off or worse off than before the merger ?

QUESTION 1(b) **(8 MARKS)**

M/s. Parker & Co. is contemplating to borrow an amount of Rs.60 crores for a Period of 3 months in the coming 6 month's time from now. The current rate of interest is 9% p.a., but it may go up in 6 month's time. The company wants to hedge itself against the likely increase in interest rate.

The Company's Bankers quoted an FRA (Forward Rate Agreement) at 9.30%p.a.

EVALUATE the effect of FRA and actual rate of interest cost to the company, if the actual rate of interest after 6 months happens to be (i) 9.60% p.a. and (ii) 8.80% p.a.?

QUESTION 1(c) **(4 MARKS)**

Distinguish between : Primary participants and secondary participants in securitization

QUESTION 2(a) **(8 MARKS)**

The closing value of Sensex for the month of October, 2017 is given below:

Date Closing	Sensex Value
1.10.17	2800
3.10.17	2780
4.10.17	2795
5.10.17	2830
8.10.17	2760
9.10.17	2790
10.10.17	2880
11.10.17	2960
12.10.17	2990
15.10.17	3200
16.10.17	3300
17.10.17	3450
19.10.17	3360
22.10.17	3290
23.10.17	3360
24.10.17	3340
25.10.17	3290
29.10.17	3240
30.10.17	3140
31.10.17	3260

ANALYZE the weak form of efficient market hypothesis by applying the run test at 5% and 10% level of significance using 18 Degrees of Freedom.

Note:

Value of t at 5% is 2.101 at 18 Degrees of Freedom
Value of t at 10% is 1.734 at 18 Degrees of Freedom

QUESTION 2(b) **(8 MARKS)**

On 1st April, an open ended scheme of mutual fund had 300 lakh units outstanding with Net Assets Value (NAV) of Rs. 18.75. At the end of April, it issued 6 lakh units at opening NAV plus 2% load, adjusted for dividend equalization. At the end of May, 3 Lakh units were repurchased at opening NAV less 2% exit load adjusted for dividend equalization. At the end of June, 70% of its available income was distributed.

In respect of April-June quarter, the following additional information are available:

	Rs. in lakh
Portfolio value appreciation	425.47
Income of April	22.950
Income for May	34.425
Income for June	45.450

You are required to calculate

(i) Income available for distribution;

(ii) Issue price at the end of April;

(iii) repurchase price at the end of May; and

(iv) net asset value (NAV) as on 30th June.

QUESTION 2(c) **(4 MARKS)**

Briefly explain how Angel Investors finance the Startups

QUESTION 3(a) **(8 MARKS)**

X Co., Ltd., invested to 1.4.2009 in certain equity shares as below :

Name of Co.	No. of Shares	Cost (Rs.)
M Ltd.	1,000 (Rs. 100 each)	2,00,000
N Ltd.	500 (Rs. 10 each)	1,50,000

In September, 2009, 10% dividend was paid out by M Ltd. and in October, 2009, 30% dividend paid out by N Ltd. On 31.3.2010 market quotations showed a value of Rs. 220 and Rs. 290 per share of M Ltd. and N Ltd. respectively.

On 1.4.2010, investment advisors indicate (a) that the dividends from M Ltd. and N Ltd. for the year ending 31.3.2011 are likely to be 20% and 35%, respectively and (b) that the probabilities of market quotations on 31.3.2011 are as below :

Probability factor	Price / Share of M Ltd.	Price / Share of N Ltd.
0.2	220	290
0.5	250	310
0.3	280	330

You are required to :

(i) Calculate the average return from the portfolio for the year ended 31.3.2010;

(ii) Calculate the expected average return from the portfolio for the year 2010 – 11; and

(iii) Advise X Co. Ltd., of the comparative risk in the two investments by calculating the standard deviation in each case.

QUESTION 3(b) **(8 MARKS)**

Shares of Voyage Ltd. are being quoted at a price-earning ratio of 8 times. The company retains 45% of its earnings which are Rs. 5 per share.

You are required to compute

(1) The cost of equity to the company if the market expects a growth rate of 15% p.a.

(2) If the anticipated growth rate is 16% per annum, calculate the indicative market price with the same cost of capital.

(3) If the company's cost of capital is 20% p.a. & the anticipated growth rate is 19% p.a., calculate the market price per share.

QUESTION 3(c) **(4 MARKS)**

Write a note on Financial Planning.

QUESTION 4(a) **(8 MARKS)**

XY Limited is engaged in large retail business in India. It is contemplating for expansion into a country of Africa by acquiring a group of stores having the same line of operation as that of India.

The exchange rate for the currency of the proposed African country is extremely volatile. Rate of inflation is presently 40% a year. Inflation in India is currently 10% a year. Management of XY Limited expects these rates likely to continue for the foreseeable future.

Estimated projected cash flows, in real terms, in India as well as African country for the first three years of the project are as follows:

	Year – 0	Year – 1	Year – 2	Year - 3
Cash flows in Indian Rs. (000)	-50,000	-1,500	-2,000	-2,500
Cash flows in African Rands (000)	2,00,000	+50,000	+70,000	+90,000

XY Ltd. assumes the year 3 nominal cash flows will continue to be earned each year indefinitely. It evaluates all investments using nominal cash flows and a nominal discounting rate. The present exchange rate is African Rand 6 to Rs. 1.

You are required to calculate the net present value of the proposed investment considering the following:

(i) African Rand cash flows are converted into rupees and discounted at a risk adjusted rate.

(ii) All cash flows for these projects will be discounted at a rate of 20% to reflect it's high risk.

(iii) Ignore taxation.

	Year - 1	Year - 2	Year - 3
PVIF @ 20%	0.833	0.694	0.579

QUESTION 4(b) **(8 MARKS)**

Simple Ltd. and Dimple Ltd. are planning to merge. The total value of the companies are dependent on the fluctuating business conditions. The following information is given for the total value (debt + equity) structure of each of the two companies.

Business Condition	Probability	Simple Ltd. Rs. Lacs	Dimple Ltd. Rs. Lacs
High Growth	0.20	820	1050
Medium Growth	0.60	550	825
Slow Growth	0.20	410	590

The current debt of Dimple Ltd. is Rs. 65 lacs and of Simple Ltd. is Rs. 460 lacs.

Calculate the expected value of debt and equity separately for the merged entity.

QUESTION 4(c) **(4 MARKS)**

Consider a portfolio consisting of a Rs. 200,00,000 investment in share XYZ and a Rs. 200,00,000 investment in share ABC. The daily standard deviation of both shares is 1% and that the coefficient of correlation between them is 0.3. You are required to determine the 10-day 99% value at risk for the portfolio?

QUESTION 5(a) **(12 MARKS)**

BRS Inc deals in computer and IT hardwares and peripherals. The expected revenue for the next 8 years is as follows:

Years	Sales Revenue ($ Million)
1	8
2	10
3	15
4	22
5	30
6	26
7	23
8	20

Summarized financial position as on 31 March 2012 was as follows:

$ Million

Liabilities	Amount	Assets	Amount
Equity Stocks	12	Fixed Assets (Net)	17
12% Bonds	8	Current Assets	3
	20		**20**

Additional Information:

(a) Its variable expenses is 40% of sales revenue and fixed operating expenses (cash) are estimated to be as follows:

Period	Amount ($ Million)
1- 4 years	1.6
5-8 years	2

(b) An additional advertisement and sales promotion campaign shall be launched requiring expenditure as per following details:

Period	Amount ($ Million)
1 year	0.50
2-3 years	1.50
4-6 years	3.00
7-8 years	1.00

(c) Fixed assets are subject to depreciation at 15% as per WDV method.

(d) The company has planned additional capital expenditures (in the beginning of each year) for the coming 8 years as follows:

Period	Amount ($ Million)
1	0.50
2	0.80
3	2.00
4	2.50
5	3.50
6	2.50
7	1.50
8	1.00

(e) Investment in Working Capital is estimated to be 20% of Revenue.

(f) Applicable tax rate for the company is 30%.

(g) Cost of Equity is estimated to be 16%.

(h) The Free Cash Flow of the firm is expected to grow at 5% per annum after 8 years.

CALCULATE:

(i) Value of Firm

(ii) Value of Equity

QUESTION 5(b) **(4 MARKS)**

The directors of Implant Inc. wishes to make an equity issue to finance a $ 10 m (million) expansion scheme which has an excepted Net Present Value of $2.2m and to re – finance an existing $6 m 15% Bonds due for maturity in 5 years time. For early redemption of these bonds there is a $ 3,50,000 penalty charges. The Co. has also obtained approval to suspend these pre – emptive rights and make a $ 15 m placement of shares which will be at a price of $ 0.5 per share. The floatation cost of issue will be 4% of Gross proceeds. Any surplus from issue will be invested in IDRs which is currently yielding 10% per year.

The Present capital structure of Co. is as under :

	'000
Ordinary Share ($ 1 per share)	7,000
Share Premium	10,500
Free Reserves	25,500
	43,000
15% Term Bonds	6,000
11% debenture (2012 – 2020)	8,000
	57,000

Current share price is $2 per share and debenture price is $103 per debenture. Cost of capital of Co. is 10%. It may be further presumed that stock market is semi – strong form efficient and no information about the proposed use of funds from the issue has been made available to the public. **You are required to calculate** expected share price of company once full details of the placement and to which the finance is to be put, are announced.

QUESTION 5(c) **(4 MARKS)**

Explain Dow Jones theory.

QUESTION 6(a) **(6 MARKS)**

XYZ Ltd. is an export oriented business house based in Mumbai. The Company invoices in customers' currency. Its receipt of US $ 1,00,000 is due on September 1,2009.

Market information as at June 1, 2009 is :

Exchange Rates		**Currency Futures**		
US $ /Rs.		US $/Rs.	Contract size	Rs. 4,72,000
Spot	0.02140	June	0.02126	
1 Month Forward	0.02136	September	0.02118	

3 Months forward	0.02127			
		Initial Margin		Interest Rates in India
June		Rs. 10,000		7.50%
September		Rs. 15,000		8.00%

On September 1, 2009 the spot rate US $Re. is 0.02133 and currency future rate is 0.02134.
Comment which of the following methods would be most advantageous for XYZ Ltd.

(a) Using forward contract
(b) Using currency futures
(c) Not hedging currency risks

It may be assumed that variation in margin would be settled on the maturity of the futures contract.

QUESTION 6(b) **(10 MARKS)**

The following data are available for three bonds A, B and C. These bonds are used by a bond portfolio manager to fund an outflow scheduled in 6 years. Current yield is 9%. All bonds have face value of Rs.100 each and will be redeemed at par. Interest is payable annually.

Bond	Maturity (Years)	Coupon rate
A	10	10%
B	8	11%
C	5	9%

Required

(i) Calculate the duration of each bond.

(ii) The bond portfolio manager has been asked to keep 45% of the portfolio money in Bond A. Calculate the percentage amount to be invested in bonds B and C that need to be purchased to immunise the portfolio.

(iii) After the portfolio has been formulated, an interest rate change occurs, increasing the yield to 11%. The new duration of these bonds are: Bond A = 7.15 Years, Bond B = 6.03 Years and Bond C = 4.27 years.

Is the portfolio still immunized? Why or why not?

(iv) Determine the new percentage of B and C bonds that are needed to immunize the portfolio. Bond A remaining at 45% of the portfolio.

Present values be used as follows :

Present Values	t1	t2	t3	t4	t5
PVIF0.09,t	0.917	0.842	0.772	0.708	0.650

Present Values	t6	t7	t8	T9	t10
PVIF0.09,t	0.596	0.547	0.502	0.460	0.4224

QUESTION 6(c) **(4 MARKS)**

Briefly explain Counter Party Risk and the various techniques to manage this risk.

OR

QUESTION 6(c) **(4 MARKS)**

Explain the pricing of the securitized Instruments.