



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

DESCRIBE Value at Risk and its application.

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

A Portfolio Manager (PM) has the following four stocks in his portfolio:

Security	No. of Shares	Market Price per share (Rs.)	$\beta$
VSL	10,000	50	0.9
CSL	5,000	20	1.0
SML	8,000	25	1.5
APL	2,000	200	1.2

**Compute the following:**

- (i) Portfolio beta.
- (ii) If the PM seeks to reduce the beta to 0.8, how much risk free investment should he bring in?
- (iii) If the PM seeks to increase the beta to 1.2, how much risk free investment should he bring in?

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

H Ltd. agrees to buy over the business of B Ltd. effective 1st April, 2012. The summarized Balance Sheets of H Ltd. and B Ltd. as on 31st March 2012 are as follows:

**Balance sheet as at 31st March, 2012 (In Crores of Rupees)**

Liabilities:	H. Ltd	B. Ltd.
Paid up Share Capital		
-Equity Shares of Rs.100 each	350.00	
-Equity Shares of Rs.10 each		6.50
Reserve & Surplus	950.00	25.00
<b>Total</b>	<b>1,300.00</b>	<b>31.50</b>
Assets:		
Net Fixed Assets	220.00	0.50
Net Current Assets	1,020.00	29.00
Deferred Tax Assets	60.00	2.00
<b>Total</b>	<b>1,300.00</b>	<b>31.50</b>

H Ltd. proposes to buy out B Ltd. and the following information is provided to you as part of the scheme of buying:

- (1) The weighted average post tax maintainable profits of H Ltd. and B Ltd. for the last 4 years are Rs. 300 crores and Rs. 10 crores respectively.
- (2) Both the companies envisage a capitalization rate of 8%.
- (3) H Ltd. has a contingent liability of Rs. 300 crores as on 31st March, 2012.

- (4) H Ltd. to issue shares of Rs. 100 each to the shareholders of B Ltd. in terms of the exchange ratio as arrived on a Fair Value basis. (Please consider weights of 1 and 3 for the value of shares arrived on Net Asset basis and Earnings capitalization method respectively for both H Ltd. and B Ltd.)

**You are required to arrive at the value of the shares of both H Ltd. and B Ltd. under:**

- (i) Net Asset Value Method
- (ii) Earnings Capitalisation Method
- (iii) Exchange ratio of shares of H Ltd. to be issued to the shareholders of B Ltd. on a Fair value basis (taking into consideration the assumption mentioned in point 4 above.)

**QUESTION 2(c)**

**(4 MARKS)**

Briefly explain the steps involved in Mechanism of Securitization.

**QUESTION 3(a)**

**(10 MARKS)**

- (i) The shares of TIC Ltd. are currently priced at Rs. 415 and call option exercisable in three months' time has an exercise rate of Rs. 400. Risk free interest rate is 5% p.a. and standard deviation (volatility) of share price is 22%. Based on the assumption that TIC Ltd. is not going to declare any dividend over the next three months, is the option worth buying for Rs. 25?
- (ii) Calculate value of aforesaid call option based on Black Scholes valuation model if the current price is considered as Rs. 380.
- (iii) What would be the worth of put option if current price is considered Rs. 380.
- (iv) If TIC Ltd. share price at present is taken as Rs. 408 and a dividend of Rs. 10 is expected to be paid in the two months time, then, calculate value of the call option.

**QUESTION 3(b)**

**(6 MARKS)**

Seawell Corporation, a manufacturer of do – it – yourself hardware and housewares, reported earnings per share of € 2.10 in 2013, on which it paid dividends per share of € 0.69. Earnings are expected to grow 15% a year from 2004 to 2008, during this period the dividend payout ratio is expected to remain unchanged. After 2018, the earnings growth rate is expected to drop to a stable rate of 6%, and the payout ratio is expected to increase to 65% of earnings. The firm has a beta of 1.40 currently, and is expected to have a beta of 1.10 after 2018. The market risk premium is 5.5%. The Treasury bond rate is 6.25%.

- (a) **What is the expected price of the stock** at the end of 2018?
- (b) **What is the value of the stock, using the two – stage dividend discount model ?**

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

What is a startup to avail the benefits of government scheme?

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

A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US\$ 500 million. The net working capital requirements are estimated at US\$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US\$ 80, its variable cost per unit being US\$ 40. The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

- (i) Variable operating cost will be US \$ 20 per unit of production;
- (ii) Additional cash fixed cost will be US \$ 30 million p.a. and project's share of allocated fixed cost will be US \$ 3 million p.a. based on principle of ability to share;
- (iii) Production capacity of the proposed project in India will be 5 million units;
- (iv) Expected useful life of the proposed plant is five years with no salvage value;
- (v) Existing working capital investment for production & sale of two million units through exports was US \$ 15 million;
- (vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;
- (vii) Applicable Corporate Income Tax rate is 35%, and
- (viii) Required rate of return for such project is 12%.

**CALCULATE the Net Present Value (NPV)** of the proposed project in India, assuming that:

- (a) there will be no variation in the exchange rate of two currencies and
- (b) all profits will be repatriated, as there will be no withholding tax.

Present Value Interest Factors (PVIF) @ 12% for five years is as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

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

The following information is provided relating to the acquiring company Efficient Ltd. and the target Company Healthy Ltd.

	Efficient Ltd.	Healthy Ltd.
No. of shares (F.V. Rs. 10 each)	10.00 lakhs	7.5 lakhs
Market capitalization	500.00 lakhs	750.00 lakhs
P/E ratio (times)	10.00	5.00
Reserves and Surplus	300.00 lakhs	165.00 lakhs
Promoter's Holding (No. of shares)	4.75 lakhs	5.00 lakhs

Board of Directors of both the Companies have decided to give a fair deal to the shareholders and accordingly for swap ratio the weights are decided as 40%, 25% and 35% respectively for Earning, Book Value and Market Price of share of each company.

**Required**

- (i) Calculate the swap ratio and also calculate Promoter's holding % after acquisition.
- (ii) What is the EPS of Efficient Ltd. after acquisition of Healthy Ltd.?
- (iii) What is the expected market price per share and market capitalization of Efficient Ltd. after acquisition, assuming P/E ratio of Firm Efficient Ltd. remains unchanged.
- (iv) Calculate free float market capitalization of the merged firm.

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

DESCRIBE the factors affecting Industry Analysis.

**QUESTION 5(a)****(8 MARKS)**

Following information relates to AKC Ltd. which manufactures some parts of an electronics device which are exported to USA, Japan and Europe on 90days credit terms.

Cost and Sales information:

	Japan	USA	Europe
Variable cost per unit	Rs.225	Rs.395	Rs.510
Export sale price per unit	Yen 650	US\$10.23	Euro 11.99
Receipts from sale due in 90 days	Yen 78,00,000	US\$1,02,300	Euro 95,920

Foreign exchange rate information:

	Yen/Rs.	US\$/Rs.	Euro/Rs.
Spot market	2.417-2.437	0.0214-0.0217	0.0177-0.0180
3 months forward	2.397-2.427	0.0213-0.0216	0.0176-0.0178
3 months spot (Expected)	2.423-2.459	0.02144-0.02156	0.0177-0.0179

**Advice AKC Ltd. By calculating average contribution to sales ratio whether it should hedge it's foreign currency risk or not.**

**QUESTION 5(b)****(8 MARKS)**

Following are risk and return estimates for two stocks

Stock	Expected returns (%)	Beta	Specific SD of expected return (%)
A	14	0.8	35
B	18	1.2	45

The market index has a Standard Deviation (SD) of 25% and risk free rate on Treasury Bills is 6%.

**You are required to calculate :**

- The standard deviation of expected returns on A and B.
- Suppose a portfolio is to be constructed with the proportions of 25%, 40% and 35% in stock A, B and Treasury Bills respectively, what would be the expected return, standard deviation of expected return of the portfolio?

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

Discuss briefly the key decisions which fall within the scope of financial strategy.

**QUESTION 6(a)****(10 MARKS)**

Sun Moon Mutual Fund (Approved Mutual Fund) sponsored open-ended equity oriented scheme "Chanakya Opportunity Fund". There were three plans viz. 'A' – Dividend Re-investment Plan, 'B' – Bonus Plan & 'C' – Growth Plan.

At the time of Initial Public Offer on 1.4.2009, Mr. Anand, Mr. Bacchan & Mrs. Charu, three investors invested Rs. 1,00,000 each & chosen 'B', 'C' & 'A' Plan respectively.

The History of the Fund is as follows:

Date	Dividend %	Bonus Ratio	Net Asset Value per Unit (F.V. Rs. 10)		
			Plan A	Plan B	Plan C
28.07.2013	20		30.70	31.40	33.42
31.03.2014	70	5 : 4	58.42	31.05	70.05
31.10.2017	40		42.18	25.02	56.15
15.03.2018	25		46.45	29.10	64.28
31.03.2018		1 : 3	42.18	20.05	60.12
24.03.2019	40	1 : 4	48.10	19.95	72.40
31.07.2019			53.75	22.98	82.07

On 31st July 2019 all three investors redeemed all the balance units.

**CALCULATE:**

- Annual rate of return of Mrs. Charu who has invested in 'A' – Dividend Re-investment Plan.
- Annual rate of return of Mr. Anand who has invested in 'B' – Bonus Plan.
- Annual rate of return of Mr. Bacchan who has invested 'C' – Growth Plan.

**Assumptions:**

1. Long-term Capital Gain is exempt from Income tax.
2. Short-term Capital Gain is subject to 10% Income tax.
3. Security Transaction Tax 0.2 per cent only on sale/redemption of units.
4. Ignore Education Cess

**QUESTION 6(b)**

**(6 MARKS)**

XYZ Inc. issues a £ 10 million floating rate loan on July 1, 2016 with resetting of coupon rate every 6 months equal to LIBOR + 50 bp. XYZ is interested in a collar strategy by selling a Floor and buying a Cap. XYZ buys the 3 years Cap and sell 3 years Floor as per the following details on July 1, 2016 :

Notional Principal Amount	\$ 10 million
Reference Rate	6 months LIBOR
Strike Rate	4% for Floor and 7% for Cap
Premium	0*

\*Since Premium paid for Cap = Premium received for floor

Using the following data you are required to determine :

- (i) Effective interest paid out at each reset date,
- (ii) The average overall effective rate of interest p.a.

Reset Date	LIBOR (%)
31.12.2016	6.00
30.06.2017	7.50
31.12.2017	5.00
30.06.2018	4.00
31.12.2018	3.75
30.06.2019	4.25

**QUESTION 6(c)**

**(4 MARKS)**

How different stakeholders view the financial risk?

**OR**

**QUESTION 6(c)**

**(4 MARKS)**

State the main problems faced in Securitization in India?