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Answer Paper	
(NEW) SFM DETAILED TEST - 1	**Duration**: 70
Details: Test - 1	**Marks**: 35

Instructions:

- All the questions are compulsory
- Properly mention test number and page number on your answer sheet, Try to upload sheets in arranged manner.
- In case of multiple choice questions, mention option number only Working notes are compulsory wherever required in support of your solution
- Do not copy any solution from any material. Attempt as much as you know to fairly judge your performance.

Ans-1

1.Financing decisions: These decisions deal with the mode of financing or **mix of equity capital and debt capital.**

2. Investment decisions: These decisions involve the profitable utilization of firm's funds especially in long-term projects (capital projects). The projects are evaluated in relation to their expected return and risk.

3.Dividend decisions: These decisions determine the division of earnings between **payments to shareholders** and reinvestment in the company.

4.Portfolio decisions: A portfolio decision refers to a **collection of investment tools** such as stocks, shares, mutual funds, bonds, cash and so on depending on the investor's income, budget and convenient time frame.

Ans.2 Assuming share prices are normally distributed, for level of 99%, the equivalent Z score from Normal table of Cumulative Area is 2.33.

Volatility in terms of rupees is: 2% of Rs. 1 Crore = Rs. 2 lakh

The maximum loss for 1 day at 99% Confidence Level is Rs. 2 lakh x 2.33 = Rs. 4.66 lakh,

And expected maximum loss for 10 trading days shall be:

√10 x Rs. 4.66 lakh = 14.73 lakhs or 14.74 lakhs

Ans-3 The various hints that may provide counter party risk are as follows:

(a) Failure to obtain necessary resources to complete the project or transaction undertaken.

(b) Any regulatory restrictions from the Government.

(c) Hostile action of foreign government.

(d) Let down by third party.

(e) Have become insolvent.

The various techniques to manage this type of risk are as follows:

Carrying out Due Diligence before dealing with any third party.

(1) Do not over commit to a single entity or group or connected entities.

(2) Know your exposure limits.

(3) Review the limits and procedure for credit approval regularly.

(4) Rapid action in the event of any likelihood of defaults.

Use of performance guarantee, insurance or other instruments

Ans-4 The variance of the portfolio (in millions of rupees) is

$0.02^2 \times$ Rs. $10^2 + 0.01^2 \times$ Rs. $5^2 + 2 \times 0.7 \times 0.02 \times$ Rs. $10 \times 0.01 \times$ Rs. $5 =$ Rs. 0.0565

The standard deviation is = $\sqrt{\text{Rs.}}\ 0.0565$ = Rs. 0.2377 per million

Since N (-2.33) = 0.01, the 1-day 99% VaR is 2.33 × Rs. 0.2377 = Rs. 0.5538 per million

The 10-day 99% VaR is =Rs. 0.5538 × $\sqrt{10}$ = Rs. 1.7514 per million.

The total 10-day 99% VaR is therefore Rs. 1,751,400

The 10-day 99% VaR for the L & T investment is:

= 0.02 × Rs. 10 million × $\sqrt{10}$× 2.33 = Rs. 1,473,621

The 10-day 97.5% VaR for the Sun Pharma investment is:

= 0.01 × Rs. 5 million × $\sqrt{10}$× 2.33 = Rs. 368,405

The diversification benefit is = Rs. 1,473,621 + Rs. 368,405 - Rs. 1,751,400 = Rs. 90626

Ans-5 Calculation of Ex-rights Price and Value of Right:

a. If the firm offers one right share for every two shares held:

Number of shares to be issued = 500000

Ex-Rights Price = $NP_0 + SR / N + R = 13 \times 1000000 + 2000000/15,00,000$ = Rs 10

Subscription price = Rs 20,00,000/5,00,000 = Rs 4

Value of rights = $P_0 – SR/N + R = 13 – 4 \times 1 / 2 + 1$ = Rs 3

b. If Firm Offers One Right Share for Every Four Shares Held:

Number of shares to be issued = 250000

Ex-Rights Price = $NP_0 + SR/N + R = 13 \times 1000000 + 2000000 / 12,50,000$ = Rs 12

Subscription price = Rs 20,00,000/2,50,000 = Rs 8

Value of rights = $P_0 – SR/N + R = 13 – 8 \times 1 / 4 + 1$ = Rs 1

c. Effect on Shareholders' wealth:

The shareholders' wealth will not change whether the rights offer is 1:2 or 1:4. Either the wealth created in the company represented in higher market value of share or the benefit of lower subscription price is passed on to shareholders but then, the share price will be quoted lower. Since the flotation costs of a rights issue in much lower than the public issue, the benefit can be transferred to existing shareholders in the form of lower subscription price of rights issue.

Ans-6

1. Conversion value = No. of shares x Market price of shares = 2 x 21 = Rs. 42
2. Conversion Premium = (50-42)/42 x 100 = 19.05%
3. Before conversion EPS = (Rs. 1500000 - 40000 x 3.50)/500000 = Rs. 2.72

After Conversion EPS = (Rs. 1500000 - 0)/(500000 + 80000) = Rs. 2.586

4. Before conversion EPS = (1500000 + 1000000 - 40000 x 3.5) lakhs/500000 = Rs. 4.72

After Conversion EPS = (Rs. 1500000 + 1000000 - 0)/ (500000 + 80000) = Rs. 4.31

Ans-7

		Amount in (Rs)
A.	Differential Annual Interest Saving	
	Interest on outstanding bonds (30000000 x 0.14)	4200000
	Interest on new bonds (30000000 x 0.12)	3600000
	Annual Interest Savings	600000
	Less: Taxes (0.40 x 600000)	240000
	Annual interest saving after tax	360000
	PV of savings over the next 25 years @8% [360000 x PVIFA(8%,25)	3842919
B.	Call premium	
	Before tax [Rs 1,140 – Rs 1,000) x 30,000 bonds]	420000
	Less: Taxes (0.40 x 4200000)	1680000
	After Tax Cost of Call Premium	2520000
C.	Flotation cost of new bond	400000
D.	Savings on Amortization of Floatation Cost of issue of New Bonds [16000 x (0.40) x PVIFA(8%,25)] where [16000 = 400000 = 25];	68319
E	Differential tax saving from amortization of old issue.	
	Present value of immediate tax savings arising out of amortizing the entire balance floatation cost [25/30 * 360000 * 0.4]	120000
	(Had the firm retained debt;-PV of Amortization would have been: (Rs 12,000 * 40% * 10.675)	51239
	Difference - PV of Tax Savings	68761

F.	Differential tax saving from amortization of discount of old issue.	
	Present value of immediate tax savings arising out of amortizing the entire unamortized discount [25/30 * (-30*30000) * 0.4]	300000
	(Had the firm retained debt;-PV of Amortization would have been: ((1/30) * Rs (30 x 30,000) * 40% * 10.675)	128097
	Difference - PV of Tax Savings	171903
G	Overlapping interest on old bond (0.14 x 30,000,000 x 2/12 x (1 – 0.4))	420000
	NPV of Refunding Decision = A-B-C +D+E+F-G	8,11,902

The proposed refunding is recommended because of positive benefit.