CAP-III AFM Test -14

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Mission 80+
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Must Write following details on First page of your Answer sheet.
(1) Name, (2) Mobile Number & (3) Mail ID:
Send scan copy of your answer sheet in PDF format at: ***sfmcertifiedcopy@gmail.com*** *for evaluation.*

Roll No……………. | **Maximum Marks - 100**

Total No. of Questions - 6 | **Total No. of Printed Pages – 4**

Time Allowed - 3 Hours

All questions are compulsory. Working notes should form part of the answer.
Make assumptions wherever necessary.

1. Standard Inc., a Singapore based Pharmaceutical Company has received an offer from Nepal Pharma Ltd., a company engaged in manufacturing of drugs to cure Malaria, to set up a manufacturing unit in Birgunj, Nepal in a joint venture. **20**

As per the Joint Venture agreement, Standard Inc. will receive 55% share of revenues plus a royalty @ Singapore Doller 0.01 per bottle. The initial investment will be NPR 200 crores for machinery and factory. The scrap value of machinery and factory is estimated at the end of five (5) year to be NPR 5 crores. The machinery is depreciable @ 20% on the value net of salvage value using Straight Line Method. An initial working capital to the tune of NPR 50 crores shall be required and thereafter NPR 5 crores each year.

As per Government of Nepal (GON) directions, it is estimated that the price per tablet will be NPR 7.50 and production will be 24 crores tablets per year. The price per tablet, in addition to inflation of respective years, shall be increased by NPR 1 each year. The production cost shall be 40% of the revenues.

The applicable tax rate in Nepal is 30% and 35% in Singapore and there is Double Taxation Avoidance Agreement between Nepal and Singapore. According to the agreement tax credit shall be given in Singapore for the tax paid in Nepal. In both the countries, taxes shall be paid in the following year in which profit has arisen/ remittance received.

The Spot rate of Singapore Doller is NPR 57. The inflation in Nepal is 6% (expected to decrease by 0.50% every year) and 5% in Singapore.

As per the policy of GON, only 50% of the share can be remitted in the year in which they are realised and remaining in the following year.

Though WACC of Standard Inc. is 13% but due to risky nature of the project it expects a return of 15%.

Determine whether Standard Inc. should invest in the project or not (from subsidiary point of view).

2. (a) NIFTY futures are traded at a multiple of 50. Consider the following quotations of NIFTY futures in the 5 trading days during Sep, 2023 : **10**

Days	Open	High	Low	Close
01-09-2023	19297.40	19339.55	19229.70	19265.80
04-09-2023	19298.35	19366.85	19249.70	19306.05
05-09-2023	19774.85	19777.90	19709.10	19742.65
06-09-2023	18433.45	18452.80	18334.75	18347.45
07-09-2023	19375.55	19388.20	19223.65	19253.80

Abhishek bought one NIFTY futures contract on September, 01. The average daily absolute change in the value of contract is Rs.50,000 and standard deviation of these changes is Rs. 15,000. The maintenance margin is 75% of initial margin.

(i) You are required to determine the daily balances in the margin account and payment on margin calls, if any.
(ii) Compute the Gain or Loss of Abhishek, if contract squared off on 07-09-2023.
(iii) What would be the Gain or Loss if Abhishek, had taken the short position?

2. (b) A Portfolio Manager (PM) has three mutual funds in his portfolio. Following are the details of these three mutual funds: **10**

Particulars	Growth Fund	Balanced Fund	Regular Fund	Market
Average Return (%)	7.5	6.3	5.4	
Variance				50.41
Sharpe Ratio	-0.15	-0.36	-0.48	
Treynor's Ratio	-2	-3	-4.80	

The yield on 182 days Treasury bill is 9 per cent per annum.

You are required to calculate:
(i) Variance of the Funds
(ii) Coefficient of Determination of the Funds

3 (a) A Nepalese company obtains the following quotes (NPR/$) **10**

Spot: 35.90/36.10
3-Months forward rate: 36.00/36.25
6-Months forward rate: 36.10/36.40

The company needs $ funds for six months. Determine whether the company should borrow in $ or NPR.

Interest rate are: 3-Months Interest rate: NPR: 12% , $: 6%
6-Months Interest rate: NPR: 11.50% , $ 5.5%

Also determine what should be the rate of interest after 3 months to make the company indifferent between 3-months borrowing and 6-months borrowing in the case of:
(i) Rupee borrowing
(ii) Dollar borrowing

Note: For the purpose of calculation you can take the units of dollar and rupee as 100 each.

3 **(b)** AFC Ltd. wishes to acquire BCD Ltd. The shares issued by the two companies are 10,00,000 and 5,00,000 respectively: **10**

(i) Calculate the increase in the total value of BCD Ltd. resulting from the acquisition on the basis of the following conditions:

Current expected growth rate of BCD Ltd.	7%
Expected growth rate under control of AFC Ltd., (without any additional capital investment and without any change in risk of operations)	8%
Current Market price per share of AFC Ltd.	Rs.100
Current Market price per share of BCD Ltd.	Rs.20
Current Dividend per share of BCD Ltd.	Rs.0.60

(ii) On the basis of aforesaid conditions calculate the gain or loss to shareholders of both the companies, if AFC Ltd. were to offer one of its share for every four shares of BCD Ltd.

(iii) Calculate the gain to the shareholders of both the Companies, if AFC Ltd. pays Rs.22 for each share of BCD Ltd., assuming the P/E Ratio of AFC Ltd. does not change after the merger. EPS of AFC Ltd. is Rs.8 and that of BCD is Rs.2.50. It is assumed that AFC Ltd. invests its cash to earn 10%.

4. **Write short note on the following:** **(5×3=15)**

(a) Write Short Notes on Straddles and Strangles. **3**

(b) What are the important features of an options contract? **3**

(c) Write short note on Stock Lending Scheme. **3**

(d) Distinguish between open ended and close ended mutual fund schemes. **3**

(e) Discuss the various barriers to Foreign Direct Investment (FDI). **3**

5. **(a)** ABC leasing Ltd. is in the process of making out a proposal to lease certain equipment. The cost of the equipment is Rs.10,00,000 and the period of lease is 10 years. The following additional information is available. You are required to determine the equated annual rent to be charged for the proposal. **8**

(i) The machine can be depreciated fully over the 10 years on straight-line basis.

(ii) The current effective tax rate is 40% and expects to go down to 30% from the beginning of the 6th year of the lease.

(iii) It is the normal objective to make a 10% post-tax return in its lease pricing.

(iv) Lease management fee of 1% of the value of the asset is usually collected from the lessees upon signing of the contract of lease, to cover the overhead costs related to processing of the proposal.

(v) Annual lease rents are collected at the beginning of every year.

5. **(b)** X Ltd. a UK company arranges on 1 January with a US supplier for purchase of goods costing US $ 96,000. X Ltd. is supposed to pay 1st July. X Ltd. arranged a forward exchange contract with its bank to Purchase $ 96, 000 six months hence. **7**

Later on, the goods were found defective. As per agreement reached between X Ltd. and US company, X Ltd. was supposed to pay the US company only $ 50,000. X limited purchased only $ 50,000 though the contract was for $ 96,000. Calculate the amount in sterling pound that X Ltd has to pay to its bank on the basis of following information:

1 January	Rate per sterling pound
Spot	$ 1.5145 - 1.5155
6 month forward	0.95 - 0.85 cent premium
1 July spot	$ 1.5100 - 1.5110

6. **(a)** The following information pertains to M/s XY Ltd. **6**

Earnings of the Company	Rs.5,00,000
Dividend Payout ratio	60%
No. of shares outstanding	1,00,000
Equity capitalization rate	12%
Rate of return on investment	15%

(i) What would be the market value per share as per Walter's model?

(ii) What is the optimum dividend payout ratio according to Walter's model and the market value of Company's share at that payout ratio?

6. **(b)** The total market value of the equity share of O.R.E. Company is Rs.60,00,000 and the total value of the debt is Rs.40,00,000. The treasurer estimate that the beta of the stock is currently 1.5 and that the expected risk premium on the market is 10 per cent. The treasury bill rate is 8 per cent. **4**

Required:

(1) What is the beta of the Company's existing portfolio of assets?

(2) Estimate the Company's Cost of capital and the discount rate for an expansion of the company's present business.