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CA FINAL

SUBJECT- S.F.M.

Test Code – FNJ 7410

(Date :)

(Marks - 100)

Question 1 is Complusory. Attempt any four Questions from remaining five Questions.

Working Notes should form part of the Answer.

QUESTION 1(A) **(12 MARKS)**

Mr. Abhishek is interested in investing Rs. 2,00,000 for which he is considering following three alternatives:

(i) Invest Rs. 2,00,000 in Mutual Fund X (MFX)

(ii) Invest Rs. 2,00,000 in Mutual Fund Y (MFY)

(iii) Invest Rs. 1,20,000 in Mutual Fund X (MFX) and Rs. 80,000 in Mutual Fund Y (MFY)

Average annual return earned by MFX and MFY is 15% and 14% respectively. Risk free rate of return is 10% and market rate of return is 12%.

Covariance of returns of MFX, MFY and market portfolio Mix are as follow:

	MFX	MFY	Mix
MFX	4.800	4.300	3.370
MFY	4.300	4.250	2.800
Mix	3.370	2.800	3.100

You are required to calculate:

(i) variance of return from MFX, MFY and market return,

(ii) portfolio return, beta, portfolio variance and portfolio standard deviation,

(iii) expected return, systematic risk and unsystematic risk; and

(iv) Sharpe ratio, Treynor ratio and Alpha of MFX, MFY and Portfolio Mix

QUESTION 1(B) **(4 MARKS)**

Mr. Tempest has the following portfolio of four shares:

Name	Beta	Investment Rs. Lac.
Oxy Rin Ltd.	0.45	0.80
Boxed Ltd.	0.35	1.50
Square Ltd.	1.15	2.25
Ellipse Ltd.	1.85	4.50

The risk-free rate of return is 7% and the market rate of return is 14%.

CALCULATE

(i) Portfolio return.

(ii) Calculate the portfolio Beta

(iii) Explain briefly the concept of Cluster Financing.

QUESTION 1(C) Explain: Angel Investors. **(4 MARKS)**

QUESTION 2(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 2(B) **(8 MARKS)**

ABC Co. is considering a new sales strategy that will be valid for the next 4 years. They want to know the value of the new strategy. Following information relating to the year which has just ended, is available:

Income Statement	Rs.
Sales	20,000
Gross margin (20%)	4,000
Administration, Selling & distribution expense (10%)	2,000
PBT	2,000
Tax (30%)	600
PAT	1,400
Balance Sheet Information	
Fixed Assets	8,000
Current Assets	4,000
Equity	12,000

If it adopts the new strategy, sales will grow at the rate of 20% per year for three years. The gross margin ratio, Assets turnover ratio, the Capital structure and the income tax rate will remain unchanged.

Depreciation would be at 10% of net fixed assets at the beginning of the year.

The Company's target rate of return is 15%.

Calculate the incremental value due to adoption of the strategy.

QUESTION 2(C) Explain some of the innovative ways to finance a startup. **(6 MARKS)**

QUESTION 3(A) **(8 MARKS)**

On April 3, 2016, a Bank quotes the following:

Spot exchange Rate (US $ 1)	INR 66.2525	INR 67.5945
2 months' swap points	70	90
3 months' swap points	160	186

In a spot transaction, delivery is made after two days. Assume spot date as April 5, 2016.

Assume 1 swap point = 0.0001,

Calculate:

(i) swap points for 2 months and 15 days. (For June 20, 2016),

(ii) foreign exchange rate for June 20, 2016, and

(iii) the annual rate of premium/discount of US$ on INR, on an average rate.

QUESTION 3(B) **(8 MARKS)**

XL Ispat Ltd. has made an issue of 14 per cent non-convertible debentures on January 1, 2007. These debentures have a face value of Rs. 100 and is currently traded in the market at a price of Rs. 90.

Interest on these NCDs will be paid through post-dated cheques dated June 30 and December 31. Interest payments for the first 3 years will be paid in advance through post- dated cheques while for the last 2 years post-dated cheques will be issued at the third year. The bond is redeemable at par on December 31, 2011 at the end of 5 years.

Required:

(i) CALCULATE the current yield and YTM of the bond.

(ii) CALCULATE the duration of the NCD.

(iii) CALCULATE the realized yield on the NCD assuming that intermediate coupon payments are, not available for reinvestment.

QUESTION 3(C)

Discuss briefly the steps involved in the Securitization mechanism. **(4 MARKS)**

QUESTION 4(A) **(7 MARKS)**

Delta Ltd.'s current financial year's income statement reports its net income as Rs. 15,00,000. Delta's marginal tax rate is 40% and its interest expense for the year was Rs. 15,00,000. The company has Rs. 1,00,00,000 of invested capital, of which 60% is debt. In addition, Delta Ltd. tries to maintain a Weighted Average Cost of Capital (WACC) of 12.6%.

(i) **Calculate** the operating income or EBIT earned by Delta Ltd. in the current year.

(ii) **Calculate** the Delta Ltd.'s Economic Value Added (EVA) for the current year?

(iii) Delta Ltd. has 2,50,000 equity shares outstanding. According to the EVA you calculated in (ii), **Evaluate** how much can Delta pay in dividend per share before the value of the company would start to decrease? If Delta does not pay any dividends, **Evaluate** what would you expect to happen to the value of the company?

QUESTION 4(B) **(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 all ocated 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%.

ADVICE X Inc. to establish the proposed project in

India.

Note:

1. There will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax.
2. Present Value Interest Factors (PVIF) @ 12% for five years are as below:

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

QUESTION 4(C) DISCUSS : What you understand about Embedded Derivatives **(5 MARKS)**

OR

QUESTION 4(C) What is Reverse Stock Split up and why companies resort it. **(5 MARKS)**

QUESTION 5(A) **(6 MARKS)**

If the present interest rate for 6 months borrowings in India is 9% per annum and the corresponding rate in USA is 2% per annum, and the US$ is selling in India at Rs. 64.50/$.

Then Recommend:

(i) Will US $ be at a premium or at a discount in the Indian forward market?

(ii) The expected 6 month forward rate for US$ in India.

(iii) The rate of forward premium/discount.

QUESTION 5(B) **(6 MARKS)**

Mr. A is thinking of buying shares at Rs. 500 each having face value of Rs. 100. He is expecting a bonus at the ratio of 1:5 during the fourth year. Annual expected dividend is 20% and the same rate is expected to be maintained on the expanded capital base. He intends to sell the shares at the end of seventh year at an expected price of Rs. 900 each. Incidental expenses for purchase and sale of shares are estimated to be 5% of the market price. He expects a minimum return of 12% per annum.

Recommend whether Mr. A should buy the shares? If so, what maximum price should he pay fo r each share? Assume no tax on dividend income and capital gain.

QUESTION 5(C) **(8 MARKS)**

Following information is given:

Exchange rates: Canadian dollar 0.666 per DM (spot)
Canadian dollar 0.671 per DM (3-months)

Interest rates: DM 7.5% p.a.

Canadian Dollar - 9.5% p.a.

To take the possible arbitrage gains, what operations would be carried out?

QUESTION 6(A) **(12 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 6(B) **(8 MARKS)**

On 19th January, Bank A entered into forward contract with a customer for a forward sale of US $ 7,000, delivery 20th March at Rs. 46.67. On the same day, it covered its position by buying forward from the market due 19th March, at the rate of Rs. 46.655. On 19th February, the customer approaches the bank and requests for early delivery of US $. Rates prevailing in the interbank markets on that date are as under:

Spot (Rs./$)	46.5725/5800
March	46.3550/3650

Interest on outflow of funds is 16% and on inflow of funds is 12%. Flat charges for early delivery are Rs. 100.

What is the amount that would be recovered from the customer on the transaction?

Note: Calculation should be made on months basis than on days basis.

Additional Question of 20 marks in option of any one question from Question 2 to Question 6

AQ 1) **(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.

AQ 2) (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

AQ 3) (4 MARKS)

EXPLAIN the need for finance in case of a MSME unit. Describe the process for arrangement of finance in the case of MSME.