

PAPER-14: Advanced Financial Management

Full Marks: 100

Time Allowed: 3 Hours

This paper contains 5 questions. All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer.

Assumptions, if any, must be clearly indicated.

1. Answer all questions.

(a) Define Index Number.

[2]

(b) The following portfolio details of a fund are available:

Stock	Shares	Price(₹)
A	2,00,000	35
B	3,00,000	40
C	4,00,000	20
D	6,00,000	25

The fund has accrued management fees with the portfolio manager totaling ₹30,000.

There are 40 lakhs shares outstanding. What is the NAV of the fund?

[2]

(c) Define Merchant Banker as per SEBI.

[2]

(d) What do you mean by French Auction?

[2]

(e) An American company's Japanese subsidiary, Tahoma Japan, has exposed assets of ₹8 billion and exposed liabilities of ₹6 billion. During the year, the yen appreciates from ₹125/\$ to ₹95/\$. What is Tahoma Japan's net translation exposure at the beginning of the year in yen? In dollars?

[2]

(f) Stock A is expected to give an average return of 40% and stock B which is expected to give a return of 30%. If the proportion of investments in A and B is 70:30, find expected return of portfolio?

[2]

(g) X owns a stock portfolio equally invested in a risk free asset and two stocks. If one of the stocks has a beta of 0.8 and the portfolio is as risky as the market what must be the beta of the other stocks in the portfolio?

[2]

(h) One of the advantages of Cross Border leasing is Double Dip Lease. – Justify.

[2]

(i) Optimistic Ltd has an EPS of ₹90 per share. Its Dividend Payout Ratio is 40%. Its earnings and dividends are expected to grow at 5% per annum. Find out the cost of Equity Capital if its Market Price is ₹360 per share.

[2]

(j) A German machine is selling for 80,000 Euros. What is the dollar price in the U.S. for the German machine if the exchange rate is 1.20 Euros per dollar?

[2]

2. (Answer any three questions)

(a)(i) Mr. S Ghosh had purchased 1000 units of a scheme of Birla MF at the rate of ₹60 per unit. He held the units for 2 years and got a dividend of 15% and 20% in the first year, and second year respectively on the face value of ₹10 per unit. At the end of the second year, the units are sold at the rate of ₹75 per unit. Determine the effective rate of return per year which Mr. Ghosh has earned on this MF scheme.

[5]

(ii) NBFCs lend and make investments (ii) and hence their activities are akin to that of banks. – State the differences.

[3]

- (b)(i) Mr. A purchased Treasury Bill for ₹9950 maturing in 91 days for ₹10,000. Find what would be the annualized investment rate for Mr. A. Government, on the other hand pays ₹5000 at maturity for 91 days Treasury Bill. If Mr. A is desirous to earn an annualized discount rate of 3.5%, then what maximum amount he can pay for Treasury Bill? [3]
- (ii) List the aspects that should be borne in mind by a depositor while making deposits with an NBFC. [5]
- (c)(i) The common share of a company is selling at ₹90. A 21 week call is selling at ₹8. The call's exercise price is ₹100. The risk free rate is 10% p.a. What should be the price of a 21 week put of ₹100. [3]
- (ii) Nifty Index is currently quoting at 1329.78. Each lot is 250. Z purchases a March contract at 1364. He has been asked to pay 10% initial margin. What is the amount of initial margin? Nifty futures rise to 1370. What is the percentage gain? [2]
- (iii) Name the participants in commodity futures. [3]
- (d)(i) How risk mitigation helps the infrastructure sector of India? [5]
- (ii) Calculate the current price of a money market instrument with face value of ₹100 and discount yield of 8% in 90 days. Take 1 year = 360 days. [3]

3. (Answer any two questions)

- (a) (i) Write down the features of Interest Rate Caps. [4]
- (ii) The annual interest rate is 5% in the United States and 8% in the UK. The spot exchange rate is £/\$ -1.50 and forward exchange rate, with one year maturity, is £/\$ =1.48. In view of the fact that the arbitrageur can borrow \$ 100000 at current spot rate, what would be the arbitrageur profit/loss? [6]
- (b)(i) ADS Ltd. is considering a project in US, which will involve an initial investment of US \$ 1,10,00,000. The project will have 5 years of life. Current spot exchange rate is ₹48 per US \$. The risk free rate in US is 8% and the same in India is 12%. Cash inflows from the project are as follows-

Years	1	2	3	4	5
Cash Inflow(US \$)	20,00,000	25,00,000	30,00,000	40,00,000	50,00,000

Calculate the NPV of the project using foreign currency approach. Required rate of return on this project is 14%. [8]

- (ii) How credit rating provides guidance to investors/creditors in determining a credit risk associated with a debt instrument? [2]

- (c) Company PQR and DEF have been offered the following rate per annum on a \$ 200 million five year loan:

Company	Fixed Rate	Floating Rate
PQR	12.0	LIBOR+0.1%
DEF	13.4	LIBOR + 0.6%

Company PQR requires a floating - rate loan; Company DEF requires a fixed rate loan.

PTP_Final_Syllabus 2012_Dec2014_Set 1

Design a swap that will net a bank acting as intermediary at 0.5 percent per annum and be equally attractive to both the companies. [10]

4. (Answer any two questions)

(a)(i) A trader is having in its portfolio shares worth ₹85 lakhs at current price and cash ₹15 lakhs. The beta of share portfolio is 1.6. After 3 months the price of shares dropped by 3.4%.

Determine:

- Current Portfolio Beta.
- Portfolio beta after 3 months if the trader on current date goes for long position on ₹100 lakhs Nifty futures. [1+5]

(ii) Define Breadth Index. [2]

(b) Mr. Ram is holding the following securities:

Particulars of Securities	Cost(₹)	Dividends(₹)	Market Price(₹)	Beta
Equity Shares				
AB Ltd.	11,000	1,800	12,000	0.6
DB Ltd.	16,000	1,000	17,200	0.8
SD Ltd.	12,000	800	18,000	0.6
GOI Bonds	40,000	4,000	37,500	1.0

Calculate:

- Expected rate of return in each case, using the Capital Asset Pricing Model (CAPM).
- Average rate of return, if risk free rate of return is 14%. [8]

(c)(i) Stock P has a Beta of 1.50 and a market expectation of 15% return. For Stock Q, it is 0.80 and 12.5% respectively. If the risk free rate is 6% and the market risk premium is 7%, evaluate whether these two stocks are priced correctly? [5]

(ii) An investor is seeking the price to pay for a security, whose standard deviation is 5%. The correlation coefficient for the security with the market is 0.80 and the market standard deviation is 4.40%. The return from Government securities is 5.20% and from the market portfolio is 9.80%. The investor knows that, by calculating the required return, he can then determine the price to pay for the security. What is the required return on security? [3]

5. (Answer any two questions)

(a)(i) ABC Ltd. is planning to procure a machine at an investment of ₹40 lakhs. The expected cash flow after tax for next three years is as follows:

Year -1		Year-2		Year-3	
CFAT	Probability	CFAT	Probability	CFAT	Probability
12	0.1	12	0.1	18	0.2
15	0.2	18	0.3	20	0.5
18	0.4	30	0.4	32	0.2

PTP_Final_Syllabus 2012_Dec2014_Set 1

32	0.3	40	0.2	45	0.1
----	-----	----	-----	----	-----

The company wishes to consider all possible risks factors relating to the machine.

The company wants to know:

- The expected NPV of this proposal assuming independent probability distribution with 7% risk free rate of interest.
- The possible deviations on expected values. [10]

(b)(i) A firm has projected the following cash flows from a project under evaluation:

Year	₹ lakhs
0	(70)
1	40
2	40
3	20

The given cash flows have been made at expected prices after recognizing inflation. The firms cost of capital is 10%. The expected annual rate of inflation is 5%. Show how the viability of the project is to be evaluated using both nominal rate of discount and real rate of discount. [8]

(ii) 'Promoters capacity and competence is examined, with reference to their Management background by Financial Institutions under project appraisal'. Name them. [2]

(c)(i) Company Z is forced to choose between two machines A and B. The two machines are designed differently, but have identical capacity and do exactly the same job. Machine A costs ₹150000 and will last for 3 years. It costd ₹40000 per year to run. Machine B is an economy model costing only ₹100000 but will last only for 2 years and costs ₹60000 per year to run. These are real cash flows. The costs are forecasted in rupees of constant purchasing power. Ignore tax. Opportunity cost of capital is 10%. Which machine Company Z should buy? [6]

(ii) Write a note on financial forecasting. [4]