

# P14\_Practice Test Paper\_Syl12\_Dec13\_Set 1

## Paper 14: Advance Financial Management Answer Question No.1 which is compulsory

Total Allowed:3hours

Full Marks:100

1.

a) MS. VASUDA is considering an investment in a Mutual Fund with a 2% load. As another alternative, she can also invest in a Bank deposit paying 10% interest. Her investment planning period is 3 years. What should be the annual rate of return on Mutual fund so that she prefers the investment in the fund to the investment in Bank Deposit? **[3]**

b) Distinguish between 'pay-through' and 'pass-through' certificates. **[3]**

c) An extract from exchange rate list of a Kolkata based bank is given below :

₹/¥ : 0.3992 : 0.4002

(i) How many Yen will it cost for a Japanese tourist visiting India to purchase ₹ 2,500 worth of jackfruit?

(ii) How much will Mr. Basu in Kolkata have to spend in rupees, to purchase a Sony Camcorder worth Yen 1, 25,000? **[5]**

d) The following two types of securities are available in the market for investment:

Security	Return (%)	Standard Deviation (%)
Gilt-edge Security	7	0
Equity	25	30

Using the above two securities, if you are planning to invest ₹ 1, 00,000 to construct a Portfolio with a standard deviation of 24%, what is the return of such portfolio? **[2]**

e) The co-efficient of correlation between returns of Spark Ltd and Sensex is 1.10. The expected returns on the stock of Spark and Sensex are 18% and 14.37% respectively. The return on 182 day T- Bill is 6.31%. What would be the standard deviation of the returns of Spark if the standard deviation of Sensex's return is 17%? **[2]**

f) Megatron LTD. Paid a dividend of ₹2.60 during the last year and the growth rate in the dividends is expected to be 8%. The current market price of the stock is ₹30.00. the beta of the stock is 1.60 and the return on the market index is 13%. If the risk free-free rate of return is 8%, by how much should the price of the stock be raised in percentage terms so that it is at equilibrium? **[3]**

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- g) S Limited earns ₹6 per share, has capitalization rate of 10% and has a return on investment at the rate of 20%. According to Walter's model, what should be the price per share at 30% dividend payout ratio? [2]

## Section A

(Answer any two of the following)

2. a) A mutual Fund having 300 units has shown its NAV of ₹ 8.75 and ₹9.45 at the beginning and at the end of the year respectively. The Mutual Fund has given two options:  
i) Pay ₹0.75 per unit as dividend and ₹0.60 per unit as a capital gain, or  
ii) These distributions are to be reinvested at an average NAV of ₹8.65 per unit.

What difference it would make in terms of return available and which option is preferable?

- b) How to manage the risk in Infrastructure Project. Explain

[6+6=12]

3. a) What makes Commodity Trading Attractive?

- b) What are needs for a range of various performance measures in an organization? What are the various categories of performance indicators?

[6+6=12]

4. Explain the issues and challenged constraining Infrastructure Funding [12]

## Section – B

(Answer any one of the following)

5. a) Bharat's subsidiary in India, Emami, procures most of its soaps from a Japanese company. Because of the shortage of working capital in India, payments terms for the Indian importers are typically 180 days or more. Emami wishes to hedge a 8.5 million Japanese Yen payable. Although options are not available on the Indian Rupee (₹), forward rates are available against the Yen. Additionally, a common practice in India is, for companies like Emami, to work with a currency agent who will, in this case, lock in the current spot exchange for a 4.85% fee. Using the following data, recommend a hedging strategy.

Spot rate, USD/JPY	yen 120.60/\$
Spot rate, USD/INR	₹47.75/\$
180-day forward rate, JPY/INR	₹0.4166/yen
Expected spot exchange rate in 180 days	₹0.3846/yen
180-day yen investment rate	1.5%
180-day rupee investment rate	8.0%
Cost of capital	12.0%

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b) What is swaps? Explain its necessity. Also state financial benefits created by swap transactions?

c) Mr. A purchased a 3-month call option for 100 shares in XYZ Ltd. at a premium of ₹30 per share, with an exercise price of ₹550. He also purchased a 3-month put option for 100 shares of the same company at a premium of ₹5 per share with an exercise price of ₹450. The market price of the share on the date of Mr. A's purchase of options is ₹500. Calculate the profit or loss that Mr. A would make assuming that the market price falls to ₹350 at the end of 3 months.

[10+5+5=20]

6. a) The shares of TIC Ltd are currently priced at ₹415 and call option exercisable in three month's time has an exercise rate of ₹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 ₹25?

i) Calculate value of aforesaid call option based on Black Scholes Valuation Model if the current Price is considered as ₹380.

ii) What would be the worth of put option if current price is considered ₹380?

b) Write short note on any two out of the following

i) Green Shoe Option

ii) Forward as hedge instrument

iii) Foreign Currency Convertible Bonds (FCCBs)

[10+10=20]

## Section C

(Answer any one of the following)

7. a) "Technical analysts consider the market to be 80% psychological and 20% logical. Fundamental analysts consider the market to be 20% psychological and 80% logical". Explain briefly.

b) A portfolio Manager has the following four stocks in his portfolio:

Security	No. of shares	Market price per share (₹)	$\beta$
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 Portfolio Manager seeks to reduce the Beta to 0.8, how much Risk Free investment should he bring in?

iii) If the Portfolio Manager seeks to increase the Beta to 1.2, how much Risk Free investment should he bring in?

[6+10=16]

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8. a) XYZ Ltd. is a 100% equity financed company with beta of 1.24. It is a diversified company with three operating diversions. East, West and Central. The operating characteristics of east are 50% more risky than West and Central is 25% less risky than West. West is having twice market value than that of East, while Central is having equal market value than that of East. The market return is 24% and standard deviation is 16%. At present the West division has started showing under performance, the management of XYZ Ltd. planned to sell the West division and use the entire amount to purchase PQR Ltd. PQR Ltd is an all equity company and having similar market as of West division. PQR Ltd. has a revenue sensitivity of 1.5 times that of West division of XYZ Ltd. and also PQR Ltd. has operating gearing ratio of 1.8 current operating gearing ratio in West 2.00.

Assume risk free rate 11%, no synergistic, benefits from disinvestment and acquisition and taxation is to be ignored.

Required to calculate:

- Asset beta for each division of XYZ
- Calculate asset beta for PQR Ltd.
- Calculate asset beta for XYZ Ltd. after disinvestment and acquisition.
- Calculate the discount rate of applicable to new investment project.

- b) Mr. Khan intends to invest in equity shares of a company the value of which depend upon various parameters as mentioned below:

Factor	Beta	Expected value in %	Actual value in %
GNP	1.20	7.70	7.70
Inflation	1.75	5.50	7.00
Interest rate	1.30	7.75	9.00
Stock market index	1.70	10.00	12.00
Industrial production	1.00	7.00	7.50

[12+4=16]

## Section D

(Answer any one of the following)

9. a) A company has received 3 proposals for the acquisition of an assets on lease costing ₹1,50,000.

**Option I :** The terms of offer envisaged payment of lease rentals for 96 months. During the first 72 months, the lease rentals were to be paid @ ₹ 30 p.m. per ₹1,000 and during the remaining 24 months @ ₹5 p.m. per ₹1,000. At the expiry of lease period, the lessor has offered to sale the assets at 5% of the original cost.

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**Option II:** Lease agreement for a period of 72 months during which lease rentals to be paid per month per ₹1,000 are ₹35, ₹30, ₹26, ₹24, ₹22 and ₹20 for next 6 years. At the end of lease period the asset is proposed to be abandoned.

**Option III:** Under this offer a lease agreement is proposed to be signed for period of 60 months wherein a initial lease deposit to the extent of 15% will be made at the time of signing of agreement. Lease rentals @ ₹35 per ₹1,000 per months will have to be paid for a period of 60 months on the expiry of leasing agreement, the assets shall be sold against the initial deposit and the asset is expected to last for a further period of three years.

You are required to evaluate the proposals keeping in view the following parameters.

- (i) Depreciation @ 25%
- (ii) Discounting rate @ 15%
- (iii) Tax rate applicable @ 40%

The monthly and yearly discounting factors @ 15% discount rate are as follows:

Period	1	2	3	4	5	6	7	8
Monthly	0.923	0.765	0.685	0.590	0.509	0.438	0.377	0.325
Yearly	0.869	0.756	0.658	0.572	0.497	0.432	0.376	0.327

- b)** "Cost of capital is used by a company as a minimum benchmark for its yield". Comment. Also enumerate the applications of cost of capital in managerial decisions.
- c)** An entity has ₹50lakhs existing funds financed ₹20 lakhs from equity share capital, ₹15 lakhs from retained earnings and ₹15 lakhs from 12% debentures. It requires additional funds of ₹20 lakhs. These can be financed ₹10 lakhs from 14% debentures and ₹10 lakhs from new issue of equity shares. Tax rate applicable to the company is 35%. The company is expecting to pay ₹4 per share at the end of the year. The company is growth rate of dividends is expected to be 8% perpetually. Market price per equity share is ₹40 per share. Issue price of the new equity shares is expected to be ₹35 per share. Flotation cost to the issue is ₹3 per share. Compute weighted marginal cost of capital.

**[10+5+5=20]**

- 10. a)** Das Ltd. a manufacturing company produces 25,000 litres of special lubricants in its plant. The existing plant is not fully depreciated for tax purposes and has a book value of ₹ 3 lakhs (it was bought for ₹ 6 lakh six years ago). The cost of the product is as under:

Particulars	Cost/Litre (₹)
Variable costs	60.00
Fixed Overheads	15.00
	75.00

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It is expected that the old machine can be used for further period of 10 Years by carrying out suitable repairs at a cost of ₹2 lakh annually.

A manufacturer of machinery is offering a new machine with the latest technology at ₹10 lakhs after trading off the old plant (machine) for ₹1 lakh. The projected cost of the product will then be:

Particulars	Cost/Litre (₹)
Variable costs	45.00
Fixed Overheads	20.00
	65.00

The fixed overheads are allocations from other department plus the depreciation of plant and machinery. The old machine can be sold for ₹ 2 lakh in the open market. The new machine is expected to last for 10 years at the end of which, its salvage value will be ₹1 lakhs. Rate of corporate taxation is 50%. For tax purposes, the cost of the new machine and that of the old one may be depreciated in 10 years. The minimum rate of return expected is 10%

It is also anticipated that in future the demand for the demand for the product will remain at 25,000 litres.

Advise whether the new machine can be purchased Ignore capital gain taxes.

[Given: PVIFA (10%, 10 years) = 6.145, PVIF (10%, 10 years) = 0.386]

b) "Forfeiting and factoring are two different ways of financing exports of international goods" Explain it.

c) From the following, compute the net Present Value (NPVs) of the two projects for each of the possible cash flows

Particulars	Project X [₹000's]	Project Y [₹000's]
Initial Cash outflows (T=0)	30	30
Cash inflows estimates (T=1-10)		
Worst	5	8
Most Likely	8	10
BEST	15	20
Required Rate of Return	14%	14%
Economic Life (years)	10	10

[10+5+5=20]