

Test Series: August, 2017

MOCK TEST PAPER – 1

FINAL COURSE : GROUP – I

PAPER – 2 : STRATEGIC FINANCIAL MANAGEMENT

*Question No. 1 is compulsory. Attempt any **five** questions from the remaining **six** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours

Maximum Marks – 100

1. (a) BSE 5000
- | | |
|-------------------------|---------------|
| Value of portfolio | Rs. 10,10,000 |
| Risk free interest rate | 9% p.a. |
| Dividend yield on Index | 6% p.a. |
| Beta of portfolio | 1.5 |

We assume that a future contract on the BSE index with four months maturity is used to hedge the value of portfolio over next three months. One future contract is for delivery of 50 times the index.

Based on the above information calculate:

- (i) Price of future contract.
- (ii) The gain on short futures position if index turns out to be 4,500 in three months. (5 Marks)
- (b) From the following details relating to a project, analyze the sensitivity of the project to changes in initial project cost, annual cash inflow and cost of capital:

Initial Project Cost (Rs.)	1,20,000
Annual Cash Inflow (Rs.)	45,000
Project Life (Years)	4
Cost of Capital	10%

To which of the three factors, the project is most sensitive? (Use annuity factors: for 10% 3.169 and 11% 3.103). (5 Marks)

- (c) ABN-Amro Bank, Amsterdam, wants to purchase Rs. 15 million against US\$ for funding their Vostro account with Canara Bank, New Delhi. Assuming the inter-bank, rates of US\$ is Rs. 51.3625/3700, what would be the rate Canara Bank would quote to ABN-Amro Bank? Further, if the deal is struck, what would be the equivalent US\$ amount. (5 Marks)

- (d) An investor purchased 300 units of a Mutual Fund at Rs. 12.25 per unit on 31st December, 2009. As on 31st December, 2010 he has received Rs. 1.25 as dividend and Rs. 1.00 as capital gains distribution per unit.

Required:

- (i) The return on the investment if the NAV as on 31st December, 2010 is Rs. 13.00.
- (ii) The return on the investment as on 31st December, 2010 if all dividends and capital gains distributions are reinvested into additional units of the fund at Rs. 12.50 per unit. (5 Marks)

2. (a) A company is considering engaging a factor, the following information is available:

- (i) The current average collection period for the Company's debtors is 80 days and ½% of debtors default. The factor has agreed to pay money due after 60 days and will take the responsibility of any loss on account of bad debts.
- (ii) The annual charge for the factoring is 2% of turnover payable annually in arrears. Administration cost saving is likely to be Rs. 1,00,000 per annum.
- (iii) Annual sales, all on credit, are Rs. 1,00,00,000. Variable cost is 80% of sales price. The Company's cost of borrowing is 15% per annum. Assume the year is consisting of 365 days.

Should the Company enter into a factoring agreement? (8 Marks)

- (b) Yes Ltd. wants to acquire No Ltd. and the cash flows of Yes Ltd. and the merged entity are given below:

	(Rs. In lakhs)				
Year	1	2	3	4	5
Yes Ltd.	175	200	320	340	350
Merged Entity	400	450	525	590	620

Earnings would have witnessed 5% constant growth rate without merger and 6% with merger on account of economies of operations after 5 years in each case. The cost of capital is 15%.

The number of shares outstanding in both the companies before the merger is the same and the companies agree to an exchange ratio of 0.5 shares of Yes Ltd. for each share of No Ltd.

PV factor at 15% for years 1-5 are 0.870, 0.756; 0.658, 0.572, 0.497 respectively.

You are required to:

- (i) Compute the Value of Yes Ltd. before and after merger.
- (ii) Value of Acquisition and

- (iii) Gain to shareholders of Yes Ltd. (8 Marks)
3. (a) Armada Leasing Company is considering a proposal to lease out a school bus. The bus can be purchased for Rs. 5,00,000 and, in turn, be leased out at Rs. 1,25,000 per year for 8 years with payments occurring at the end of each year:
- (i) Estimate the internal rate of return for the company assuming tax is ignored.
 - (ii) What should be the yearly lease payment charged by the company in order to earn 20 per cent annual compounded rate of return before expenses and taxes?
 - (iii) Calculate the annual lease rent to be charged so as to amount to 20% after tax annual compound rate of return, based on the following assumptions:
 - (a) Tax rate is 40%;
 - (b) Straight line depreciation;
 - (c) Annual expenses of Rs. 50,000; and
 - (d) Resale value Rs. 1,00,000 after the turn. (8 Marks)
- (b) X Ltd., has 8 lakhs equity shares outstanding at the beginning of the year. The current market price per share is Rs. 120. The Board of Directors of the company is contemplating Rs. 6.4 per share as dividend. The rate of capitalisation, appropriate to the risk-class to which the company belongs, is 9.6%:
- (i) Based on M-M Approach, calculate the market price of the share of the company, when the dividend is – (a) declared; and (b) not declared.
 - (ii) How many new shares are to be issued by the company, if the company desires to fund an investment budget of Rs. 3.20 crores by the end of the year assuming net income for the year will be Rs. 1.60 crores? (8 Marks)
4. (a) Zaz plc, a UK Company is in the process of negotiating an order amounting €2.8 million with a large German retailer on 6 month's credit. If successful, this will be first time for Zaz has exported goods into the highly competitive German Market. The Zaz is considering following 3 alternatives for managing the transaction risk before the order is finalized.
- (I) Mr. Peter the Marketing head has suggested that in order to remove transaction risk completely Zaz should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.
 - (II) Mr. Wilson, CE is doubtful about Mr. Peter's proposal and suggested an alternative of invoicing the German firm in € and using a forward exchange contract to hedge the transaction risk.
 - (III) Ms. Karen, CFO is agreed with the proposal of Mr. Wilson to invoice the German first in €, but she is of opinion that Zaz should use sufficient 6 month

sterling further contracts (to the nearest whole number) to hedge the transaction risk.

Following data is available

Spot Rate	€ 1.1960 - €1.1970/£
6 months forward premium	0.60 – 0.55 Euro Cents.
6 month further contract is currently trading at	€ 1.1943/£
6 month future contract size is	£62,500
After 6 month Spot rate and future rate	€ 1.1873/£

You are required to

- Calculate (to the nearest £) the £ receipt for Zaz plc, under each of 3 above proposals.
- In your opinion which alternative you consider to be most appropriate.

(8 Marks)

- (b) Following is the data regarding six securities:

	A	B	C	D	E	F
Return (%)	8	8	12	4	9	8
Risk (Standard deviation)	4	5	12	4	5	6

- Assuming three will have to be selected, state which ones will be picked.
- Assuming perfect correlation, show whether it is preferable to invest 75% in A and 25% in C or to invest 100% in E.

(8 Marks)

5. (a) Personal Computer Division of Distress Ltd., a computer hardware manufacturing company has started facing financial difficulties for the last 2 to 3 years. The management of the division headed by Mr. Smith is interested in a buyout on 1 April 2013. However, to make this buy-out successful there is an urgent need to attract substantial funds from venture capitalists.

Ven Cap, a European venture capitalist firm has shown its interest to finance the proposed buy-out. Distress Ltd. is interested to sell the division for Rs. 180 crore and Mr. Smith is of opinion that an additional amount of Rs. 85 crore shall be required to make this division viable. The expected financing pattern shall be as follows:

Source	Mode	Amount (Rs. Crore)
Management	Equity Shares of Rs. 10 each	60.00

VenCap VC	Equity Shares of Rs. 10 each	22.50
	9% Debentures with attached warrant of Rs. 100 each	22.50
	8% Loan	160.00
Total		265.00

The warrants can be exercised any time after 4 years from now for 10 equity shares @ Rs. 120 per share.

The loan is repayable in one go at the end of 8th year. The debentures are repayable in equal annual installment consisting of both principal and interest amount over a period of 6 years.

Mr. Smith is of view that the proposed dividend shall not be kept more than 12.5% of distributable profit for the first 4 years. The forecasted EBIT after the proposed buyout is as follows:

Year	2013-14	2014-15	2015-16	2016-17
EBIT (Rs. crore)	48	57	68	82

Applicable tax rate is 35% and it is expected that it shall remain unchanged at least for 5-6 years. In order to attract VenCap, Mr. Smith stated that book value of equity shall increase by 20% during above 4 years. Although, VenCap has shown their interest in investment but are doubtful about the projections of growth in the value as per projections of Mr. Smith. Further VenCap also demanded that warrants should be convertible in 18 shares instead of 10 as proposed by Mr. Smith.

You are required to determine whether or not the book value of equity is expected to grow by 20% per year. Further if you have been appointed by Mr. Smith as advisor then whether you would suggest to accept the demand of VenCap of 18 shares instead of 10 or not. (8 Marks)

- (b) On 31st March, 2013, the following information about Bonds is available:

Name of Security	Face Value Rs.	Maturity Date	Coupon Rate	Coupon Date(s)
Zero coupon	10,000	31 st March, 2023	N.A.	N.A.
T-Bill	1,00,000	20 th June, 2013	N.A.	N.A.
10.71% GOI 2023	100	31 st March, 2023	10.71	31 st March
10% GOI 2018	100	31 st March, 2018	10.00	31 st March & 30 th September

Calculate:

- (i) If 10 years yield is 7.5% p.a. what price the Zero Coupon Bond would fetch on 31st March, 2013?

- (ii) What will be the annualized yield if the T-Bill is traded @ 98500?
- (iii) If 10.71% GOI 2023 Bond having yield to maturity is 8%, what price would it fetch on April 1, 2013 (after coupon payment on 31st March)?
- (iv) If 10% GOI 2018 Bond having yield to maturity is 8%, what price would it fetch on April 1, 2013 (after coupon payment on 31st March)? (8 Marks)

6. (a) Derivative Bank entered into a plain vanilla swap through on OIS (Overnight Index Swap) on a principal of Rs. 10 crores and agreed to receive MIBOR overnight floating rate for a fixed payment on the principal. The swap was entered into on Monday, 2nd August, 2010 and was to commence on 3rd August, 2010 and run for a period of 7 days.

Respective MIBOR rates for Tuesday to Monday were:

7.75%, 8.15%, 8.12%, 7.95%, 7.98%, 8.15%.

If Derivative Bank received Rs. 317 net on settlement, calculate Fixed rate and interest under both legs.

Notes:

- (i) Sunday is Holiday.
 - (ii) Work in rounded rupees and avoid decimal working. (8 Marks)
- (b) A company has an old machine having book value zero – which can be sold for Rs. 50,000. The company is thinking to choose one from following two alternatives:
- (i) To incur additional cost of Rs. 10,00,000 to upgrade the old existing machine.
 - (ii) To replace old machine with a new machine costing Rs. 20,00,000 plus installation cost Rs. 50,000.

Both above proposals envisage useful life to be five years with salvage value to be nil.

The expected after tax profits for the above three alternatives are as under:

Year	Old existing Machine (Rs.)	Upgraded Machine (Rs.)	New Machine (Rs.)
1	5,00,000	5,50,000	6,00,000
2	5,40,000	5,90,000	6,40,000
3	5,80,000	6,10,000	6,90,000
4	6,20,000	6,50,000	7,40,000
5	6,60,000	7,00,000	8,00,000

The tax rate is 40 per cent.

The company follows straight line method of depreciation. Assume cost of capital to be 15 per cent.

P.V.F. of 15%, 5 = 0.870, 0.756, 0.658, 0.572 and 0.497. You are required to advise the company as to which alternative is to be adopted. (8 Marks)

7. Write short notes on any of **four** of the following:

- (a) Discuss the Random Walk Theory.
- (b) Mention the various techniques used in economic analysis.
- (c) Explain the term 'Buy-Outs'.
- (d) Nostro, Vostro and Loro Accounts
- (e) Write a short note on Call Money.

(4 × 4 = 16 Marks)