

given stock price? Briefly discuss how two stage DDM improves upon the Constant growth DDM. (6+6)

5) a) Distinguish and describe each of the following performance measures: i) The Sharpe Ratio, ii) Treynor's measure and iii) Jensen's alpha.

b) An analyst wants to evaluate portfolio X consisting entirely of US common stocks, using both the Treynor and Sharpe measures of Portfolio performance. The following table provides Return, SD and Beta during past 8 years of each:

	Avg. return	SD	Beta
Portfolio X	10%	18%	0.6
S & P 500	12%	13%	1
T-bills	6%	NA	NA

Calculate Treynor and Sharpe measures for both: Portfolio X and the S&P 500. Explain the performance of the portfolio X vis-à-vis S&P 500. Also explain the reason for conflicting results in performance using Treynor's vs Sharpe's measure. (6+6)

6) Write short notes on any three:

- a) Support and Resistance levels
- b) Challenges to technical trading rules
- c) Candlestick charts
- d) Relative strength Index
- e) Purpose of bond ratings
- f) Immunization

(4x3)

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Total No. of Pages 04

Third Semester

END- SEMESTER EXAMINATION

MGF-01 Investment Management

Time: 3:00 Hours

Roll No.

MBA

Nov. -2019

Max. Marks: 60

Note: Answer any five questions. Assume suitable missing data, if any.

1 a) "Young People with little wealth should not invest money in risky assets such as the stock market because they cannot afford to lose what little money they have." Do you agree or disagree with this statement. Give reasons.

b) Your healthy 63 year old neighbor is about to retire and comes to you for advice. From talking with her you find out that she was planning to take all her money out of her company's retirement plan and investing in Bond Mutual funds and Money market funds. What would be your advice to her?

c) LIC Mutual fund has a portfolio of Rs.450 mn and liabilities of Rs.10 mn. If 44 mn shares are outstanding what is NAV of the fund? If a large investor redeems 1mn. shares, what happens to portfolio value, to shares outstanding and to NAV. (4x3)

2. a) Briefly explain the concept of Efficient market hypothesis and each of its three forms.

b) Briefly explain two major role or responsibilities of portfolio managers in an efficient market environment?

c) The correlation coefficient between pairs of stocks is as follows:

- i) $\text{Corr}(A,B) = .85$
- ii) $\text{Corr}(A,C) = .60$
- iii) $\text{Corr}(A,D) = .45$

121

-22-

Each stock has an expected return of 8% and SD of 20%. If your current portfolio consists of only stock A and you can add some of only one other stock to the portfolio, which stock would you choose and why? (4x3)

3) a) Mr. John is considering the purchase of one of two bonds described in the following table. John realizes his decision will depend primarily on effective duration and he believes that interest rate will decline by 50 basis points at all maturities over the next 6 months.

particulars	ABC	PQR
Market price	101.75	101.75
Maturity date	1-Jun-22	1-Jun-22
call date	Non-callable	1-Jun-17
annual coupon	5.25%	6.35%
interest payment	semiannual	semiannual
Effective duration	7.35	5.4
YTM	5.02%	6.10%
credit rating	A	A

Calculate the percentage price change forecasted by effective duration for both the bonds, if interest rate declines by 50 basis points over the next 6 months.

b) An insurance company must make payments to a customer of Rs.10 mn in one year and Rs.4 mn. In 5 years. The yield curve is flat at 10%, If it wants to fully fund and immunize its obligation to this customer with a single issue of Zero coupon bond, what maturity bond must it purchase? Also explain in brief the relevance of yield curve for a bond manager. (6+6)

4) EDM is a large, diversified forest products company. Approx. 75% of its sales are from paper and forest products and remainder from financial services and real estates. The company own 5.6 million acres of timberland which is carried at very low historical cost on the balance sheet. Suppose you are an analyst at the investment counseling firm, Centurion Investments and have been given the task assessing the outlook of EDM, which is being considered for purchase and comparing it to another forest company SHC in Centurion's portfolio. SHC is a major producer of Lumber products in US. Building products, primarily lumber and plywood account for 89% of SHC's sales with pulp accounting for the remainder. SHC owns 1.4 mn acres of timberland which is also carried at historical

cost on the balance sheet. In SHC's case however the cost is not as far below as current market compared to ED.

FY 2018	amount (\$millions)	FY 2018	amount (\$millions)
Income statement (ED)		Income statement (SHC)	
Sales	7406	Sales	1793
EBIT	795	EBIT	145
Interest exp (net)	-195	Interest exp (net)	-8
EBT	600	EBT	137
Taxes	-206	Taxes	-46
Tax rate	34%	Tax rate	34%
Net income	394	Net income	91
Preferred Dividend	0	Preferred Dividend	0
Net income to Equity SH	394	Net income to Equity SH	91
Common shares O/s(mn)	201	Common shares O/s(mn)	38
Balance Sheet summary(ED)		Balance Sheet summary(SHC)	
Current assets	1367	Current assets	509
Timberland assets	615	Timberland assets	518
property, Plant and Equip.	5854	property, Plant and Equip.	1037
other assets	429	other assets	40
Total assets	8265	Total assets	2104
Current liabilities	1816	Current liabilities	195
Long term Debt	1585	Long term Debt	589
Deferred taxes	1000	Deferred taxes	153
Equity(preferred)	0	Equity(preferred)	0
Equity(common)	3864	Equity(common)	1167
Total Liabilities and equity	8265	Total Liabilities and equity	2104
closing share price(\$)	22	closing share price(\$)	27

a) On the basis of data given above calculate each of **five ROE components** for both the companies in 2018. Using the five components, calculate ROE for both the companies in 2018. Explain the difference in ROE of two companies, if any.

b) Using 11% as the required rate of return and a projected growth rate of 8%, compute a constant growth DDM value for EDM and SHC and compare it with its