K.J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH VIDYANAGAR, VIDYAVIHAR, MUMBAI -400 077

MFM Semester - III (2018-2021)

End Term Examination

Subject: Security Analysis & Portfolio Management	Specialization: Finance
Date of Exam: 21st Nov 2019	Marks: 50
Duration: 3 Hours	

Instructions

Q1 is compulsory and would carry **20 marks. Attempt any Three** out of the remaining Questions (10 Marks each). Please Attach Charts with main Answer Sheet.

Q.1) Mr Ram has randomly selected stocks from few sectors. He expects following returns from the stock. He has all the data available in front of him, he is confused which stock to select in his portfolio. He has approached Portfolio Fund Manager to help him for the same. The Fund Manager needs to develop optimum portfolio keeping in mind the risk-free-return is 5% and variance in the market index $(\sigma^2{}_m)$= 10%The data is as follows

Sr No	Security	Expected Return	Beta	Unsystematic Risk
1	Infy	15	1	30
2	TCS	12	1.5	20
3	Wipro	11	2	40
4	Mindtree	8	0.8	10
5	Eicher Motors	9	1	20
6	M & M	14	1.5	10

Q.2) Attempt (Any 2) (10 Marks)

a) The expected returns and Beta of three stocks are given below

Stock	A	B	C
Expected Return (%)	18	11	15
Beta Factor	1.7	0.6	1.2

If the risk free rate is 9% and the expected rate of return on the market portfolio is 14% which of the above stocks are over, under or correctly valued in the market? What shall be the strategy?

b) Discuss the Assumptions of CAPM

c) Explain Efficient Frontier

Q.3) Attempt (Any 2)   **(10 Marks)**

a) Suppose the standard deviations, beta and average rates of return of several managed portfolio are given, along with the standard deviation and average rate of T-Bills rate averaged 7% during the time period performance measurement. Compare these funds on performance using the Sharpe, Treynor and Jensen measures.

Fund	Average Return	Std Deviation	Beta
A	0.15	0.25	1.25
B	0.12	0.3	0.75
C	0.1	0.2	1
Rm	0.12	0.25	1

b) Explain Relative valuation method to arrive at target price of stock.

c) Two Portfolios were constructed, one considering of equity shares and other consisting of debentures. The rupee value of equity shares, at the time of constructing the portfolio was Rs 1,20,000-(at the rate of Rs 100/- per share) and that of the debentures was Rs 80,000/-.The investor opts to use constant rupee plan and fixes a revision point of 10%.The Share prices show fluctuations at periodical intervals as under.

Period	Share Price(Rs)
1	100(at the start i.e. at the time of constructing the portfolio)
2	90
3	85
4	75
5	80
6	95

Explain the portfolio revision pattern of the investor

Q.4) Attempt (Any 2)   **(10 Marks)**

a) Find the Expected return and portfolio variance of a portfolio consisting of equities, bonds and cash equivalents based on the following data

Asset Classes	E(R$_i$)	σ	W$_i$
Stocks(S)	0.12	0.2	0.6
Bonds(B)	0.08	0.1	0.3
Cash Equivalent (C)	0.04	0.03	0.1

The correlations are $R_{S,B}$=0.25 $R_{s,c}$ =-0.08, $R_{B,C}$ =0.15

b) Briefly discuss the problems related to fundamental analysis that are considered advantages for technical analysis

c) Assuming a stock price and volume chart that also contains 50-day and 200 day MA line,

describe a bearish pattern with the two MA lines and discuss why it is bearish.

Q.5) Attempt (Any 2)   **(10 Marks)**

a) Calculate the expected return and standard deviation for the following data provided.

Probability(Pi)	Return(Ri)
0.15	0.2
0.15	-0.2
0.7	0.1

b) Briefly explain the concept of the efficient market hypothesis (EMH) and each of its three forms.

c) Your healthy 63-year old neighbor is about to retire and comes to you for the advise. From talking with her, you find out she was planning on talking all the money out of her company's retirement plan and investing it in bond mutual funds and money market funds. What advise should you give her?

Q.6) Attempt (Any 2)   **(10 Marks)**

a) Treasury Bills give a return of 5%. Market Return is 13% **(i)** what is the market risk premium

(ii) Compute the β value and required returns for the following combination of investments

Treasury Bill	100	70	30	0
Market	0	30	70	100

b) Pearl Ltd expects that considering the current market prices, the equity share holders should get a return of at least 15.5%, while the current return on the market is 12%. RBI has closed the latest auction for Rs 2500 cr of 182 day bills for the lowest bid of 4.3% although there were bidders at a higher rate of 4.6% also for lots of less than Rs 10 cr. What is Pearl's Beta?

c) The following information is available with respect of Jaykay Ltd

Year	Jay Kay Ltd Average Share Price(Rs)	Jay Kay Ltd Dividend Per Share(DPS)	Market Average Index	Market Dividend Yield	Return on Govt Bonds
2002	242	20	1812	4	6
2003	279	25	1950	5	5
2004	305	30	2258	6	4
2005	322	35	2220	7	5

Compute Beta Value of the company as at the end of 2005. What is your observation?

Q,7) Attempt (Any 2) (10 Marks)

a) Historical Stock Prices charts are provided to you, Provide suitable Recommendation for the stock with proper justification for the same.

    a) Identify using Candle Stick Patten and Describe the Pattern –**Refer Chart-1-Infosys**

    b) Using Bollinger Band and Describe Bollinger Band- **Refer Chart-2- Reliance Industries**

    c) Using Relative Strength Index and Describe the indicator- **Refer Chart -2- Reliance Industries**

    d) Using 2 Moving Averages 21 Day-Exponential and 9 Day Moving Averages–**Refer Chart-3-Sun Pharma**

    e) Using Moving Average Convergence Divergence and Describe the indicator- **Refer Chart-4-Bharti Airtel**

b) What are the Domestic Factors of Economy which affect Indian Markets? Explain with sectors are impacted the most?

c) Indicate and justify in industry life cycle, where are following sectors placed currently

        1) Telecom Sector
        2) Cement Sector
        3) Automobile Sector
        4) Real Estate Sector