UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2017

Program/course: MBA Finance	**Semester – II**
Subject: Investment Analysis & Portfolio Management	**Max. Marks : 100**
Code : MBCF774	**Duration : 3 Hrs.**
No. of page/s:4	

Note: 1) Mention Roll No at the appropriate place in the question paper.

<u>Section –A (Objective Type)</u> **(10*2)**

Q 1 The efficiency frontier becomes a straight line throughout because of the

a) Introduction of risk-free rate
b) Introduction of lending
c) Introduction of lending and borrowing
d) Introduction of risky assets

Q 2 The security market line's first point is a risk free asset with a beta of zero and the second point on the line is one with a beta of

a) 1
b) 1.5
c) 2
d) 0.5

Q 3 Market imperfections may lead to

a) overpriced
b) under-priced
c) appropriately priced
d) of high risk

Q 4 The problem with the Markowitz model is that a number of covariances have to be estimated. For example for a portfolio of 30 stocks, the covariances that have to be estimated are

a) 300
b) 350
c) 435
d) 450

Q 5 To adopt the Sharpe index model for a portfolio of 40 stocks, the number of bits of information one needs are

a) 80
b) 100
c) 120
d) 122

Q 6 The relationship of stock X's return with the stock index return is given by its correlation coefficient being 0.8. What is the percentage of variation explained by the index?

a) 80
b) 64
c) .60
d) 20

Q 7 Company X has a beta of 1.5. The expected return is 15% and the risk-free rate of interest is 5%. What is the market return?

a) 6.67%
b) 10.33%
c) 15.66%
d) 12.33%

Q 8 Markowitz approach has roots in

a) Good portfolio management
b) Proper entry and exit in the market
c) Estimation of stock return
d) Analysing the risk and return to stocks

Q 9 Risk in the purchase of Infosys and Satyam stocks will be eliminated when

a) r = + 0.2
b) r = - 1
c) r = 0
d) r = 0.1

Q10 The spot price of a stock is Rs 20 and the risk free interest rate is 10 %. Which of the following is the future price of the stock with simple interest calculations.

a) 21
b) 23
c) 22
d) 24

Section B

Short Answer Questions (4*5-20 Marks)

Q2: Distinguish between the security market line and capital market line.
Q3: Explain CAPM theory and its validity in the stock market.
Q4: Assume that the risk free rate of return is 7 percent. The market portfolio has an expected return of 14 % and a standard deviation of return of 25 %. Under the equilibrium conditions as described by CAPM, what would be the expected return for a portfolio having no unsystematic risk and 20 % standard deviation of return?
Q 5: What are the steps involved in the traditional approach to portfolio construction.

Section C

Descriptive Type Questions (2*15-30 Marks)

Q 6 An investor wants to build a portfolio with the following four stocks. With the given details, find out his portfolio return and portfolio variances. The investment is spread equally over the stock.

Company	α	β	Residual variance
Infosys	0.17	0.93	45.15
Satyam	2.48	1.37	132.25
Oracle	1.47	1.73	196.28
IBM	2.52	1.17	51.98

Market Return (Rm) = 11
Market Return Variance = 26

Q 7 Assume you are a portfolio manager. Based on the following details, determine the securities that are overpriced and those that are underpriced in terms of the SML.

Security	Actual Returns	β	Σ

A	0.33	1.7	0.50
B	0.13	1.4	0.35
C	0.26	1.1	0.40
D	0.12	0.95	0.24
E	0.21	1.05	0.28
F	0.14	0.70	0.18
Nifty index	0.13	1.00	0.20
T-bills	0.09	0	0.0

Section D (30Marks)

Case Analysis

Q8 Mr. David is constructing an optimum portfolio. The market return forecast says theta it would be 13.5% for the next two years with the market variance of 10%. The risk free rate of return is 5%. The following securities are under review. Find the optimum portfolio.

Company	α	β	σ^2_{ei}
Anil	3.72	0.99	9.35
Avil	0.60	1.27	5.92
Bow	0.41	0.96	9.79
Viril	-0.22	1.21	5.39
Billy	0.45	0.75	4.52