



III Semester M.Com. Examination, January 2017
(Semester Scheme) (CBCS)
COMMERCE
Paper – 3.5 FB : Portfolio Management

Time : 3 Hours

Max. Marks : 70

SECTION – A

Answer **any seven** sub-questions. Each sub-question carries **two** marks. (7×2=14)

1. a) What is an efficient frontier ?
- b) What is a balanced portfolio ?
- c) On what basis securities are selected in a portfolio ?
- d) What is capital asset pricing model ?
- e) What is diversifiable risk ? Give examples.
- f) Why a risk free security is included in a portfolio ?
- g) What is the main difference between the sharpe and Treynors indices ?
- h) The return on securities A and B and their standard deviations are as under.

$$E(\overline{RA}) = 11\%, E(\overline{RB}) = 14\%$$

$$\sigma A = 10\% \quad \sigma B = 17\%$$

If an investor desires a return of 12% by investing in a portfolio of securities A and B, find the proportion of investment in A and B .

- i) What are the levels 2 market efficiency ? Explain.
- j) What are the merits of listing of securities ?

SECTION – B

Answer **any four** questions. Each question carries **five** marks. (4×5=20)

2. Explain the nature of a portfolio risk if two securities are Perfectly positively correlated and perfectly negatively correlated.

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3. Explain the assumptions under capital asset pricing model.
4. An investor owns units of three different mutual funds namely R, S and T. The following particulars are available. He wants to sell one of the funds to meet personal expenditure. Which fund he should sell ? Use jensens measure.

Fund	Excess Average Return %	Beta
R	7.7%	1.02
S	11.30	0.99
T	11.60	1.07
(Rm-Rf)	7.80	1.00

5. Credit default swap is an hedging tool. Explain.
6. The following are the risk and return relating to stocks A and B.

$$\bar{R}_A = 15\% \quad \bar{R}_B = 17\%$$

$$\sigma_A = 30\% \quad \sigma_B = 25\%$$

Determine the proportion of securities to build a minimum risk portfolio.

7. What are Hybrid securities ? Explain the differences between fully convertible debentures and partly convertible debentures.

SECTION – C

Answer **any three** questions. **Each** question carries **twelve** marks. **(3×12=36)**

8. Explain the various types of mutual funds available in Indian capital market.
9. ABC Ltd. and XYZ Ltd. have the following expected return and risk inputs for the next year

$$ER_{ABC} = 15\% \quad \sigma_{ABC} = 4\%$$

$$ER_{XYZ} = 18\% \quad \sigma_{XYZ} = 5\%$$

$$r = 0.60$$

- a) Determine the portfolio risk with equal proportions of the securities.
- b) Determine the correlation coefficient (r) to reduce the portfolio risk by 75%.



10. An investor wants to build a portfolio with the following four stocks with the given data, find out the portfolio return and risk if the investment is spread equally over the securities.

Company	α (Alpha)	β (Beta)	Residual variance $\sigma^2 e^2_i$
A Ltd	0.17	0.93	45.15
B Ltd	2.48	1.37	132.35
C Ltd	1.47	1.73	196.28
D Ltd	2.52	1.17	51.98

Market Return (R_M) = 11 %

Market Return variance = 26 (σ^2_m)

11. Mr. Shekar is shortly going to retire from his job. He wants to invest his gratuity and provident fund money in the stock market. He is not a member of any sickness benefit scheme. He is averse to company specific risk. In the market, it is assumed that short term T-bill yield 6% interest (rate). At the same time, A+ grade CRISIL rated bonds have 12.5% return with a maturity period of 3 years. The Beta and R^2 values for some common stocks are given below for a period of one year.

Company	Beta (β)	R^2
BHEL	1.30	0.51
LST	1.40	0.63
TELCO	1.47	0.47
SBI	1.41	0.57

He wants to choose a portfolio of two stocks and a risk free asset.

Frame the investment objectives and build a portfolio for him.

12. Write short notes on :

- Passive portfolio management vs active portfolio management
- Advantages of holding G bonds in the portfolio
- Various tools used in Markowitz portfolio theory.
