## Fourth Semester M.B.A. (Day) Degree Examination, September/October 2020

(CBCS – 2014-15 onwards)

#### Management

### Paper 4.2.1 - INVESTMENT ANALYSIS AND MANAGEMENT

Time : 3 Hours]

[Max. Marks: 70

#### SECTION - A

Answer any **FIVE** of the following questions. Each question carries **5** marks : (5 × 5 = 25)

- 1. Briefly explain the investment environment in India.
- 2. Define Risk. Distinguish between systematic and unsystematic risk.
- 3. What are the strategies adopted in Portfolio Revision?
- 4. Compute the risk return characteristic of an equally weighted portfolio of three securities whose individual risk and return are given in the following table, the correlation between Security A and B is -0.43 and the correlation between Security B and C is 0.21 and the correlation coefficient between Security A and C is -0.62 :

Security	Risk in Percentage	Return in Percentage
А	15	12
В	20	18
С	25	22

5. Sun Rise Company manages two mutual funds. The funds are index Fund and Equity fund. The data below provide the key statistical information :

	Return per cent	Risk	Beta	r
Equity Fund	19	18	1.49	.83
Index Fund	13	16	1.08	.68
Market	14	10	1.0	1.00
$R_f$	5			

- (a) According to Jenson method which fund performs well?
- (b) In your opinion, which fund consists more of systematic risk?

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6. Stocks X and Y display the following returns over the past three years :

Year	Return	
	X	Y
1994	14	12
1995	16	18
1996	20	15

- (a) What is the expected return on portfolio made up of 40 per cent of X and 60 per cent of Y?
- (b) What is the standard deviation of each stock?
- (c) Determine the correlation co-efficient of stock X and Y.
- (d) What is the portfolio risk of a portfolio made up of 40 per cent X and 60 per cent Y?
- 7. You have a portfolio that consists of 35% Microsoft stock, 35% Amazon stock and 30% GE stock. Microsoft has a beta of 1, Amazon has a beta of 3.0, and GE has a beta of 0.5. Treasury bills (the risk free asset) currently offer a return of 4% and the expected return on the market is 11.5 %. What return should you expect on your portfolio according to the CAPM?

#### SECTION - B

Answer any **THREE** of the following questions. Each question carries **10** marks : (3 × 10 = 30)

8. Mr. John is a risk cautious person. He is advised by a friend to buy the following stocks in equal proportion and bits of information regarding the stocks are given below :

Company	β	Unsystematic risk	
Α	0.84	5	
В	1.27	12	
С	1.17	18	

The market return variance is 25. What is the portfolio risk according to Sharpe's model?

9. Stocks X and Y had the following returns over the past 5 years :

Year	Return		
	X	Y	
1995	9	11	
1996	-10	-13	
1997	15	19	

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Year	Ret	Return	
	X	Y	
1998	17	21	
1999	21	15	

Is it advisable to have a combination of both the stock in a portfolio?

10. Explain Dow Theory in detail.

11. Explain Arbitrage pricing theory with suitable examples.

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SECTION - C
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(Compulsory)

12. Case Study :

Determine the optimum portfolio from the following data :

Security Return in % Beta of Security Unsystematic Risk

1	15	1	50
2	17	1.5	40
3	12	1	20
4	17	2	10
5	11	1	40
6	11	1.5	30
7	11	2	40
8	7	0.8	16
9	7	1	20
10	5.6	0.6	6

The risk free rate of return is 5% and variance of market is 10%.

 $(1 \times 15 = 15)$