International Islamic University Chittagong
Department of Economics & Banking

Semester End Examination, Autumn-2022 Program: BSS (Hons) in Economics & Banking

Course Code: BNKG-4707 Course Title: Financial Investment and Security Analysis; Section: 7MF

Time: **2 hours 30 minutes** Full Marks: **50**

[Answer all the following questions. Figures in the right margin indicate full marks.]

QN	Description of Questions	Marks	CLOs & PLOs	Cognitive learning
1(a).	Why does an investor prefer negative correlation to positive correlation in portfolio investment decision?	3	CLO 4 & PLO	Remembering
1(b).	Mr. Brett is considering to invest in Dhaka Stock Exchange Ltd. his portfolio manager proposes him following investment alternatives:	7	3	Evaluating

Alternatives	Return in AB Bank Ltd (%).	Return in Premier Bank Ltd.(%)
A	70%	30%
B	60	40
C	50	50
D	20	80
E	40	60
F	65	35

Currently AB Bank Ltd. & Premier Bank ltd is offering 10% and 12% return respectively. Portfolio Manager assumes that there will be risk of 8% and 9% in A & L respectively. If the correlation between AB Bank Ltd. & Premier Bank ltd. return is highly negative at -0.70, calculate portfolio risk, return and suggest which alternative should be selected?

QN	Description of Questions	Marks	CLOs & PLOs	Cognitive learning
2(a).	Why is the multi index model more precious than single index model?	3	CLO 2 & PLO 2	Remembering
2(b).	A fund manager has a portfolio worth \$80 million with a beta of 1.87. The manager is concerned about the performance of the market over the next 5 months and plans to use 8-month futures contracts on the S&P 500 to hedge the risk. The current level of the index is 2,250, one contract is on 300 times the index, the risk-free rate is 6% per annum, and there is no dividend payment. The current 8-month futures price is 2,259.	7		Evaluating

(i) Calculate optimal contract size to hedge all exposure to the market over the next 5 months.

(ii) Calculate the effect of your strategy on the fund manager's returns if the index in 5 months is 2,000 and 2,100.

3(a).	How can an investor make portfolio investment decision by capital asset pricing model?	3	CLO 3 & PLO 5	Understanding
3(b).	You are appointed as a security analyst of Apex Footwear Ltd. The following data are available for analyzing securities:	7		Evaluating

Security	Estimated returns (per cent)	Beta
A	25	2.6
B	22	2.4
C	18	2.2
D	16	1.9
E	21	2.1
F	23	1.7

In the Bangladesh treasury bill rate is 9 percent; while the market return is expected to be 19 per cent. In terms of security market line, which of the securities listed above are undervalued? Assuming that a portfolio is constructed investing equal proportion of funds in each of the above securities, what is the expected return and risk of such a portfolio?

4(a).	As an investor what are the risk you may face in bond?	3		Evaluating
4(b).	You are considering purchasing a bond with a book value of $10,000. The bond has a coupon rate of 15% and is callable before 3 years of maturity at a price of $11,500. The maturity period for the bond is 10 years. Currently, the bond is selling at $12,500 in the market. Calculate yield to maturity, yield to call, current yield and bond duration.	7	CLO 3 & PLO 5	

Or

(a).	Mr. white is an expert of CSE. Currently you are seeking information regarding market movement of CSE. Discuss how Mr. White can help you to forecast market price by different price charts and chart patterns.	5		Analyzing
(b).	How an investor incurs profit from the forward and future contract? Differentiate between forward and future contract.	5		
5(a).	Based on hypothetical data forecast market movement, overbought and oversold position.	5		Analyzing
5(b).	Suppose an investor wants to hedge against the price volatility of a stock listed on NASDAQ. The current market volatility for the stock is 30%. The investor plans to use a Stock Option Contract with a maturity period of 8 months, but he intends to use it for hedging purposes for only 4 months. The Treasury bill is offering an 8% return. The stock's current price is $50, and it does not pay any dividends. The strike price for the option contract is $40. Calculate option price for both call and put contract.	5	CLO 3 & PLO 5	Evaluating

Or

(a). The following are the monthly rates of return for Alfa company and Beta company during a six-month period. 5 Analyzing

Month	Alfa Company	Beta Company
1	-.04	.07
2	.06	-.02
3	-.07	-.10
4	.12	.15
5	-.02	-.06
6	.05	.02

Compute the following: CLO 4 & PLO 5

(i) Expected monthly rate of return for each stock
(ii) Standard deviation of returns for each stock
(iii) The covariance between the rates of return
(iv) The correlation coefficient between the rates of return.
What level of correlation did you expect? How did your expectations compare with the computed correlation? Would these two stocks offer a good chance for diversification? Why or why not?

(b) Criticize the Markowitz Portfolio Model with example. 5 Evaluating