

MASTER OF ARTS EXAMINATION, 2023

(2nd Year, 1st Semester)

ECONOMICS

[FINANCIAL ECONOMICS]

Time : Two Hours

Full Marks : 30

Do *Q.no. 1* and any *two* from the test.

1. State and justify whether the following statements are true, false or uncertain. (Do any 4) 4x2.5=10
 - (a) While explaining company level performance, overall macroeconomic productivity behaves as a co-incidental indicator while industrial production and consumer price index behave as lagging indicators.
 - (b) In a Head and Shoulders type price pattern, when the stock price cuts the neckline from above it signals a bear market.
 - (c) The Efficient Market Hypothesis suggests that $R^{of} = R^*$, where symbols have their usual meaning.
 - (d) Trader A enters into futures contracts to buy 1 million euros for 1.3 million dollars in three months. Trader B enters in a forward contract to do the same thing. The exchange rate (dollars per euro) declines

[Turn over

[2]

sharply during the first two months and then increases for the third month to close at 1.3300. Trader B will benefit more than trader A.

- (e) A cash cycle is longer than the operating cycle.
2. (a) In what ways Arbitrage Pricing theory is different from Capital Asset Pricing Model?
- (b) The expected return on a portfolio that combines the risk-free asset and the asset at the point of tangency to the efficient set is 25%. The expected return was calculated under the following assumptions :
- The risk free rate is 5%
 - The expected return on the market portfolio of risky assets is 20%.
 - The standard deviation of the efficient portfolio is 4%. In this environment, what expected rate of return would a security earn if it had a correlation of 0.5 with the market and a standard deviation of 2%?
- (c) How can you create a bear spread using call options? $3+4+3=10$
3. (a) How do restrictive financial policies differ from flexible financial policies for a firm?
- (b) What is meant by term structure of interest rate? Explain using Pure Expectations theory.
- (c) A company is considering whether to purchase a new machine or not. Machines A and B are available for \$80,000 each Earnings after taxation are as follows :

[3]

Year	Machine A(\$)	Machine B(\$)
1	24000	8000
2	32000	24000
3	40000	32000
4	24000	48000
5	16000	32000

Evaluate the two alternatives for a discount rate of 10% using payback method and net present value method. $2+4+4=10$

4. (a) Does leverage increase the value of a firm ? Explain in the light of Modigliani Miller proposition.
- (b) A European call option and put option on a stock both have a strike price of \$20 and an expiration date in 3 months. Both sell for \$3. The risk-free interest rate is 10% per annum and the current stock price is \$19. Identify the arbitrage opportunity (if any) open to a trader using Put-Call parity. $5+5=10$