



III Semester M.Com. (FA) Examination, March/April 2025

(CBCS) (2021 – 22)

FINANCIAL ANALYSIS

3.5 : Financial Derivatives

Time : 3 Hours

Max. Marks : 70

Instruction : Answer *all* Sections.

SECTION – A

Answer **any seven** questions out of ten. **Each** question carries **two** marks : **(7×2=14)**

1. a) Define Carbon Derivatives.
- b) What is Long Positions ?
- c) What is interest rate swap ?
- d) What is Mark to Market ?
- e) What are caps and floors ?
- f) Define Arbitrage.
- g) What is Cross Hedge ?
- h) Define financial derivatives.
- i) Give the meaning of perfect hedge.
- j) State any two differences between put option and call option.

SECTION – B

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

2. Explain the different types of financial derivatives with examples.
3. Explain the concept of Margin in futures trading and its importance.
4. The ABC company options contract size are 850. ABC company shares are selling at INR 388 on September 1. Call options and put options are available with expiry on November 29 and with an exercise price of INR 400. It is expected that the ABC company share price will be either INR 410 or INR 370. The risk free rate is 9%. Using binomial option pricing model, calculate call option price.

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5. Analyze the impact of financial derivatives on the 2008 global financial crisis.
6. Discuss the recent trends in derivative market.
7. A share is currently selling at Rs. 850. A dividend of Rs. 22 is expected after six months and 12 months. The risk free rate of interest is 7%. What is the price of the futures according to the cost of carry model ?

SECTION – C

Answer **any two** questions out of four. **Each** question carries **twelve** marks :
(2×12=24)

8. Clearly discuss the types and terminologies used in forward contract.
9. Suppose the 5 year borrowing currency for company A and company B in India (Rs) and USD (\$) are as follows :

Particulars	INR(Rs)	USD(\$)
Company A	10%	5%
Company B	12%	6%

Arrange a swap contract between A and B with Bank acting as an intermediary for with a commission of 0.2%.

10. Explain the Binomial options pricing model with assumptions.
11. From the following information calculate call option and put option value using Black Scholes model.

Current market price : Rs. 100 per share

Exercise price : Rs. 80 per share

Volatility of the share : 30%

Risk free interest rate : 10% p.a.

Time to expiration : 3 months.

SECTION – D

Compulsory skill based question on subject : (1×12=12)

12. You are given the task of pricing a European call option. Explain how would you use the Black Scholes model and interpret the results.