# MBSC-4.3A

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## Fourth Semester M.B.A. Degree Examination, October - 2025
## (SLM Scheme) (CBCS)
## MANAGEMENT
## Elective - A: Finance
## Derivatives

**Time : 3 Hours** **Max. Marks : 80**

### SECTION - A

**Answer any Five questions. Each question carries 5 marks.** **[5 × 5 = 25]**

***Q1)*** What are the different types of derivatives?

***Q2)*** Briefly explain commodity derivatives.

***Q3)*** What do you mean by interest rate derivatives?

***Q4)*** What is Put-call parity.

***Q5)*** What do you mean by American options?

***Q6)*** Briefly explain principles of option pricing.

***Q7)*** What are the assumptions of block and scholes model?

### SECTION - B

**Answer any four questions. Each question carries ten marks.** **[4 × 10 = 40]**

***Q8)*** Differenciate between forwards and futures.

***Q9)*** Explain the types of credit derivatives.

***Q10)*** Explain commodity future market exchanges for commodity futures in India.

***Q11)*** Suppose that the spot (zero) rates with continuous compounding are as follows

| Maturity(Years) | Rate(% per annum) |
|---|---|
| 1 | 12.00 |
| 2 | 13.00 |
| 3 | 13.70 |
| 4 | 14.20 |
| 5 | 14.50 |

Calculate forward interest rates for the second, third, fourth and fifth year.

***Q12)*** What is the future value on a wheat contract, which is currently quoting at 800/- per ton? The duration of a contract is 6 months. It costs Rs.12/- as storage cost per ton of wheat per month. $R_f$ is 10% Lot size is 25.

***Q13)*** Company ABC and XYZ have offered the

| Company | Fixed | Floating |
|---|---|---|
| A | 15% | MIBOR + 1% |
| B | 18% | MIBOR + 2% |

## SECTION - C

***Q14)*** **Case (Compulsory)** **[1 × 15 = 15]**

Assume an index consists of 3 stocks A, B&C; the current value of the index is 1056 points

| Company | Price | Market Capitalization (Rs. Crores) |
|---|---|---|
| A | 120 | 12 |
| B | 50 | 30 |
| C | 80 | 24 |

Calculate the price of a future contract with expiration in 60 days and it is known that 25 days from today. Company A would pay a dividend of Rs 8/- per share. The Risk free rate of return is 15% per annum assume the Lot size to be 200 units.

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