

2025

COMMERCE

Paper : CC-303

(Financial Markets and Financial Engineering)

Full Marks : 40

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

Module - I

Answer *any two* questions.

1. (a) Explain briefly the ASBA method in the context of Public Issues.
 (b) Issue size of X Company Ltd. 520 crore equity shares including reservations portion of 20 crore equity shares. You are required to make the details of allotment equity shares among RIIs, NIIs and QIBs under the 'Profitability Route' as well as 'QIBs Route' in accordance with the provision of SEBI(ICDR) Regulations, 2018.
 (c) X Company Ltd., an unlisted company, offers an IPO of equity shares under 'Book Building Method' where face value of the equity shares is ₹ 10 and floor price is ₹ 300 decided by the BRLM. You are suggested to calculate the price band with reference to SEBI (ICDR) Regulations, 2018 and explain the relevant factors based on which floor price is decided. 4+3+3
2. The details of Price based auction of 8.24 per cent 364 days T-Bill 2025 are as under :

Maturity Date : 5 September 2025; Coupon : 8.24 per cent; Auction date : 6 September 2024; Auction settlement date : 9 September 2024 [*September 7 and 8 being holidays, settlement is done on 9 September 2024 under T + 1 cycle*]; and Notified amount : ₹ 5,000 crore.

Bidder	Price of Bid (₹)	Amount of Bid (Rupees in Crores)
D	98.90	750
E	98.89	500
F	98.89	500
A	98.93	1,500
B	98.92	1,000
C	98.91	1,250
G	98.88	750
H	98.87	500

Please Turn Over

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You are suggested to find out :

- (i) the cut-off price under Uniform Price-Based or Dutch auction method;
- (ii) the cut-off price under Multiple Price-Based or French auction method;
- (iii) the allotment of T-Bill among bidders under both the method;
- (iv) What cash outflow per ₹ 100 Face Value will each successful bidder pay under Uniform Price-Based and Multiple Price auction method? Also comment on cash outflow comparing both the methods. 2+2+2+4

3. (a) Discuss the IPO Grading Process along with IPO Grading Scale in brief.
- (b) X Company Ltd. intends to make a public issue of 10,00,000 equity shares of ₹ 120 each (cut off price), payable fully on allotment (assuming cut off price has been decided through book building process). The total numbers of applications of 20,00,000 shares are received from different categories of investors. In this situation, the company may allot 11,50,000 shares (10,00,000 shares plus maximum 15% of 10,00,000 equity shares) by adopting Green Shoe Option (GSO) as over-allotment option. Here, 1,50,000 shares are to be borrowed by Stabilizing Agent(SA) on behalf of X Company Ltd. from the promoters or pre-issue shareholders of the said company. If the post-listing share price falls, the SA repurchases shares from the market, thus stabilizing the price. Alternatively, in case the SA does not buy shares from the market to the extent of shares over-allotted by the company due to increase in post-listing price or any other reason, the issuer company further allots shares to the extent of the shortfall. These shares shall be returned to the promoters (i.e. Lender) by the SA in lieu to the shares borrowed from them. An expense of Stabilizing Agent incurred by SA in exercising GSO is ₹ 30,000.

In this backdrop, you are suggested to make an analysis of the case by considering the post-listing price (i.e market price) of such shares under two different situations : (i) post listing price of situation-I ₹ 100 when 1,00,000 shares are bought from the market and (ii) post listing price of situation-II ₹ 140 when no. shares are bought from the market. 4+6

4. (a) Explain the concept of Demat Accounts Freezing.
- (b) Highlight the role of NSDL in stock market trading under the Depository System.
- (c) The following information has been collected regarding two shares, Share-A and Share-B, trading at a stock exchange on 11th March 2025 :

Share - A

Date	Time	Price (₹)	No. of shares traded
11 March 2025	14:45:10	385.60	550
11 March 2025	14:55:35	382.78	1,575
11 March 2025	15:00:20	380.99	1,514
11 March 2025	15:01:30	381.79	1,625
11 March 2025	15:05:40	380.38	1,025
11 March 2025	15:10:20	381.51	1,390
11 March 2025	15:20:25	381.42	800
11 March 2025	15:22:20	384.07	600
11 March 2025	15:25:55	383.74	1,200

Share - B

Date	Time	Price (₹)	No. of shares traded
11 March 2025	14:07:30	50.60	250
11 March 2025	14:11:40	52.10	585
11 March 2025	14:16:20	49.85	700
11 March 2025	14:26:25	51.25	425
11 March 2025	14:45:10	50.75	450
11 March 2025	14:55:35	49.95	500

You are required to determine the closing prices and last traded prices for both the shares for 11th March, 2025. 3+3+4

Module - II

Answer *any two* questions.

5. (a) Narrate the important areas where the knowledge of 'Financial Engineering' is applied.
- (b) Jinny Ltd. is contemplating import of a consignment from the USA for a value of USD 15,000. It requires 90 days to make payment. The supplier has offered 60 days interest free credit and is willing to offer additional 30 days credit at an interest rate of 6% per annum. The Citi Bank offer a short-term loan to the Company for 30 days at 9% per annum. Citi Bank's quotations for foreign exchange are as follows:
- Spot 1 USD = ₹ 82.00
 - 60 Days Forward 1 USD = ₹ 82.40
 - 90 Days Forward 1 USD = ₹ 82.75

You are required to firm as to whether it should—

- (i) Pay the supplier in 60 days; or
(ii) Avail the supplier's offer of 90 days credit.

You are also requested to show necessary calculations.

- (c) Mention any two limitations of a 'Forward Contract'. 3+5+2
6. (a) Explain how margins protect investors against the possibility of default.
- (b) On 24th March 2025, a Crude Oil Refinery company needs 1075 barrels of crude oil in the month of September, 2025. The current price of crude oil is ₹ 3,000 per barrel. September Futures contracts at MCX are trading at ₹ 3,200. The company expects that the price to go up further and even beyond ₹ 3,200 in September. It has the choice in buying now. Alternatively, it can hedge through the futures contract. The size of futures contract cost of capital, insurance and storage is 15% p.a. continuously compounded, examine whether it is beneficial or not. [Given $e^{0.075} = 1.07788$]

Please Turn Over

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- (c) A Portfolio Manager owns three shares as given below:

Share	Price per share (₹)	No. of shares	Beta
X Ltd.	400	1 lakh	1.1
Y Ltd.	300	2 lakhs	1.2
Z Ltd.	100	3 lakhs	1.3

The spot Nifty Index is available at 13500 and the Nifty Futures is also available at 13520. Use Stock Index Futures to decrease the Portfolio Beta to 0.8 and increase the Portfolio Beta to 1.5. Assume the Index Factor is 100.

Required :

- (i) Calculate the Portfolio Beta.
 - (ii) Find out the number of contracts to be bought or sold of Stock Index Futures. 2+4+4
7. (a) Share of X Ltd. is currently traded at ₹ 40. It is expected that at the end of one month, it will be either ₹ 38 or ₹ 42. The risk-free rate of interest is 8% per annum with continuous compounding. Calculate the present value of one-month European Call Option with a strike price of ₹ 39 with the help of Risk Neutral Model. [Given : $e^{0.08 \times 0.0833} = 1.007$]
- (b) Mr. Pintu, an investor purchased one contract of 3-month call option of Delta Ltd. with a premium of ₹ 30 and an exercise price of ₹ 550. Simultaneously, he also purchased another one contract of 3-month put option of Delta Ltd. with a premium of ₹ 5 and an exercise price of ₹ 450. The share of Delta Ltd. is currently selling at ₹ 500. Assume the size of option contract is 100 shares. You are required to determine :
- (i) Profit or loss if the price Delta Ltd. share after 3 months remain at ₹ 500, falls at ₹ 350 and rises at ₹ 600.
 - (ii) Break-even price of the contracts.
- (c) Explain the Put-call Parity Theory. 4+4+2
8. (a) Highlight the role of financial intermediaries in Swap arrangements.
- (b) Company A has outstanding debt on which it currently pays fixed rate of interest at 9.5%. The company intends to refinance the debt with a floating rate interest. The best floating rate it can obtain is LIBOR + 2%. However, it does not want to pay more than LIBOR. Another company B is looking for a loan at a fixed rate of interest to finance its exports. The best rate it can obtain 13.5%, but it cannot afford to pay more than 12%. However, one bank has agreed to offer finance at a floating rate of LIBOR + 2%. HDFC Bank is in the process of arranging an interest rate swap between these two companies.
- (i) With a schematic diagram, show how the swap deal can be structured.
 - (ii) Calculate the interest savings by each company.
 - (iii) How much would HDFC bank receive?
- (c) Explain any two option Greeks. 3+5+2