**Mock Test Paper - Series II December, 2025**

**Date of Paper: 06 December, 2025**

**Time of Paper: 2 P.M. to 5 P.M.**

## FINAL COURSE: GROUP – I

## PAPER – 2: ADVANCED FINANCIAL MANAGEMENT

## ANSWER TO PART – I CASE SCENARIO BASED MCQS

1. **Option (a)**
2. **Option (b)**
3 **Option (a)**
4. **Option (c)**
5. **Option (b)**
6. **Option (b)**
7. **Option (c)**
8. **Option (d)**
9. **Option (b)**
10. **Option (a)**
11. **Option (b)**
12. **Option (a)**
13. **Option (b)**
14. **Option (c)**
15. **Option (d)**

## ANSWERS OF PART – II DESCRIPTIVE QUESTIONS

1. (a) **Exchange Position:**

| Particulars | Purchase GBP | Sale GBP |
|---|---|---|
| Opening Balance Overbought | 50,000 | — |
| DD Purchased | 25,000 | — |
| Purchased bill on London | 75,000 | — |
| Forward Sales – TT | — | 50,000 |

| | | |
|---|---|---|
| Cancellation of Forward Contract | — | 25,000 |
| Remitted by TT | — | 42,500 |
| Draft on London cancelled | 20,000 | — |
| | 1,70,000 | 1,17,500 |
| Closing Balance Overbought | — | 52,500 |
| | 1,70,000 | 1,70,000 |

**Cash Position (Nostro A/c)**

| | Credit | Debit |
|---|---|---|
| Opening balance (credit) | 80,000 | — |
| Remitted by TT | — | 42,500 |
| | 80,000 | 42,500 |
| Closing balance (credit) | — | 37,500 |
| | 80,000 | 80,000 |

The Bank has to sell spot TT GBP 27,500 to decrease the balance in Nostro account to GBP 10,000.

This would bring down the overbought position to GBP 25,000.

Since the bank requires an overbought position of GBP 32,500, it has to buy forward GBP 7,500. **(6 Marks)**

**(b)** **(i)** Dirty Price

= Clean Price + Interest Accrued

$$= 99.42 + 100 \times \frac{10}{100} \times \frac{262}{360} = 106.70$$

**(ii)** First Leg (Start Proceed)

$$= \text{Nominal Value x } \frac{\text{Dirty Price}}{100} \times \frac{100 - \text{Initial Margin}}{100}$$

$$= ₹\ 8,00,00,000 \text{ x } \frac{106.70}{100} \times \frac{100 - 2}{100} = ₹\ 8,36,52,800$$

Second Leg (Repayment at Maturity) = Start Proceed x $(1 + \text{Repo rate} \times \frac{\text{No. of days}}{360})$

$$= ₹\ 8,36,52,800 \times \left(1 + 0.0565 \times \frac{14}{360}\right) = ₹\ 8,38,36,604$$ **(4 Marks)**

**(c)** A Unicorn is a privately held start-up company which has achieved a valuation US$ 1 billion. This term was coined by venture capitalist Aileen Lee, first time in 2013. Unicorn, a mythical animal represents the statistical rarity of successful ventures.

A start-up is referred as a Unicorn if it has following features:

(i) A privately held start-up.

(ii) Valuation of start-up reaches US$ 1 Billion.

(iii) Emphasis is on the rarity of success of such start-up.

(iv) Other common features are new ideas, disruptive innovation, consumer focus, high on technology etc.

However, it is important to note that in case the valuation of any start-up slips below US$ 1 billion it can lose its status of 'Unicorn'. Hence a start-up may be Unicorn at one point of time and may not be at another point of time.

**(4 Marks)**

**2. (a)**

| Date | Closing Index | Sign of Price Charge |
|---|---|---|
| 1.10.07 | 2800 | |
| 3.10.07 | 2780 | - |
| 4.10.07 | 2795 | + |
| 5.10.07 | 2830 | + |
| 8.10.07 | 2760 | - |
| 9.10.07 | 2790 | + |
| 10.10.07 | 2880 | + |
| 11.10.07 | 2960 | + |
| 12.10.07 | 2990 | + |
| 15.10.07 | 3200 | + |
| 16.10.07 | 3300 | + |
| 17.10.07 | 3450 | + |
| 19.10.07 | 3360 | - |
| 22.10.07 | 3290 | - |

| | | |
|---|---|---|
| 23.10.07 | 3360 | + |
| 24.10.07 | 3340 | - |
| 25.10.07 | 3290 | - |
| 29.10.07 | 3240 | - |
| 30.10.07 | 3140 | - |
| 31.10.07 | 3260 | + |

Total of sign of price changes (r) = 8

No of Positive changes = $n_1$ = 11

No. of Negative changes = $n_2$ = 8

$$\mu_r = \frac{2n_1n_2}{n_1+n_2}+1$$

$$\mu = \frac{2\times 11\times 8}{11+8}+1 = 176/19 + 1 = 10.26$$

$$\hat{\sigma}_r = \sqrt{\frac{2n_1n_2(2n_1n_2-n_1-n_2)}{(n_1+n_2)^2(n_1+n_2-1)}}$$

$$\hat{\sigma}_r = \sqrt{\frac{(2\times 11\times 8)(2\times 11\times 8-11-8)}{(11+8)^2(11+8-1)}} = \sqrt{\frac{176\times 157}{(19)^2(18)}} = \sqrt{4.252} = 2.06$$

Since too few runs in the case would indicate that the movement of prices is not random. We employ a two- tailed test the randomness of prices.

Test at 5% level of significance at 18 degrees of freedom using t- table

The lower limit

$= \mu - t \times \hat{\sigma}_r = 10.26 - 2.101 \times 2.06 = 5.932$

Upper limit

$= \mu + t \times \hat{\sigma}_r = 10.26 + 2.101 \times 2.06 = 14.588$

At 10% level of significance at 18 degrees of freedom

Lower limit

$= 10.26 - 1.734 \times 2.06 = 6.688$

Upper limit

= 10.26 + 1.734 × 2.06 = 13.832

As seen r lies between these limits. Hence, the market exhibits weak form of efficiency.

*For a sample of size n, the t distribution will have n-1 degrees of freedom.

**(10 Marks)**

**(b)** Originator (entity which sells assets collectively to Special Purpose Vehicle) achieves the following benefits from securitization.

(i) Off – Balance Sheet Financing: When loan/receivables are securitized it releases a portion of capital tied up in these assets resulting in off Balance Sheet financing leading to improved liquidity position which helps in expanding the business of the company.

(ii) More specialization in main business: By transferring the assets the entity could concentrate more on core business as servicing of loan is transferred to SPV. Further, in case of non-recourse arrangement even the burden of default is shifted.

(iii) Helps to improve financial ratios: Especially in case of Financial Institutions and Banks, it helps to manage Capital –To-Weighted Asset Ratio effectively.

(iv) Reduced borrowing Cost: Since securitized papers are rated due to credit enhancement and hence, they can be issued at reduced interest rate due to which the originator earns a spread, resulting in reduced cost of borrowings. **(4 Marks)**

**3. (a)** Net Issue Size = $15 million

Gross Issue = $\frac{\$15 \text{ Million}}{0.97}$ = $ 15.464 million

| | |
|---|---|
| Issue Price per GDR in ₹ (350 x 3 x 94%) | ₹ 987 |
| Issue Price per GDR in $ (₹ 987/ ₹ 84) | $ 11.75 |
| Dividend Per GDR ($D_1$) (₹ 10 x 3) | ₹ 30 |
| Net Proceeds Per GDR (₹ 987 x 0.97) | ₹ 957.39 |

(i) Number of GDR to be issued $\frac{\$15.464 \text{ million}}{\$11.75}$ = 1.316085 million or 13,16,085

(ii) Cost of GDR to XY Ltd. $K_e = \frac{30.00}{957.39} + 0.08 = 11.13\%$

**(6 Marks)**

**(b)** CAPM formula for calculation of Expected Rate of Return is :

$ER = R_f + \beta (R_m - R_f)$

$= 8\% + 1.5 (12\% - 8\%)$

$= 8\% + 1.5 (4\%)$

$= 8\% + 6\%$

$=14\%$ or $0.14$

Applying Dividend Growth Model for the calculation of per share equilibrium price:

$ER = \frac{D_1}{P_0} + g$

$0.14 = \frac{3 (1.10)}{P_0} + 0.10$

$0.14 - 0.10 = \frac{3.30}{P_0}$

$0.04\ P_0 = 3.30$

$P_0 = \frac{3.30}{0.04} = ₹\ 82.50$

Per share equilibrium price will be ₹ 82.50. **(4 marks)**

**(c)** One common feature in the three most common globally accepted methods of valuing a business is that it pre-supposes a business that is established and generates cash flows using its assets.

On the contrary it is difficult to call Start-ups "established" in any sense or assume that their cash flows (if not already spent on marketing) will remain constant. Profitability seems to be a cursed word in the startup investor circles.

Like the valuation of startups is often required for bringing in investments either by equity or debt. However, the most significant differentiating factor in the valuation of a startup is that there is no historical data available based on which future projections can be drawn.

The value rests entirely on its future growth potential, which, in many cases, is based on an untested idea and may not have been based on an adequate sampling of consumer behaviour or anticipated consumer behaviour. The estimates of future growth are also often based upon assessments of the competence, drive, and self-belief of, at times, very highly qualified and intelligent managers and their capacity to convert a promising idea into commercial success.

The major roadblock with startup valuation is the absence of past performance indicators. There is no 'past' track record, only a future whose narrative is controlled based on the founders' skill. It can be equated as founders walking in the dark and making the investors believe that they are wearing night vision goggles. While this is exciting and fun for the founders, this is risky for the investors. **(4 Marks)**

**OR**

Following are some similarities between Tokenization and Securitization:

**(i)** **Liquidity**: - First and foremost both Securitization and Tokenization inject liquidity in the market for the assets which are otherwise illiquid assets.

**(ii)** **Diversification**: - Both help investors to diversify their portfolio thus managing risk and optimizing returns.

**(iii)** **Trading**: - Both are tradable hence helps to generate wealth.

**(iv)** **New Opportunities**: - Both provide opportunities for financial institutions and related agencies to earn income through collection of fees.

**(4 Marks)**

**4. (a) Project A**

Expected Net Cash flow (ENCF)

0.3 (6,00,000) + 0.4 (4,00,000) + 0.3 (2,00,000) = 4,00,000

$\sigma^2$=0.3 (6,00,000– 4,00,000)$^2$ + 0.4 (4,00,000 – 4,00,000)$^2$ + 0.3 (2,00,000 – 4,00,000)$^2$

$\sigma = \sqrt{24,00,00,00,000}$

$\sigma$ = 1,54,919.33

Present Value of Expected Cash Inflows = 4,00,000 × 4.100 = 16,40,000

NPV = 16,40,000 – 5,00,000 = 11,40,000

**Project B**

ENCF = 0.3 (5,00,000) + 0.4 (4,00,000) + 0.3 (3,00,000) = 4,00,000

$\sigma^2$=0.3 (5,00,000 – 4,00,000)$^2$ + 0.4 (4,00,000 – 4,00,000)$^2$ + 0.3 (3,00,000 – 4,00,000)$^2$

$\sigma = \sqrt{6,00,00,00,000}$

$\sigma$ = 77,459.66

Present Value of Expected Cash Inflows = 4,00,000 × 4.100 = 16,40,000

NPV = 16,40,000 – 5,00,000 = 11,40,000

**Recommendation:** NPV in both projects being the same, the project should be decided on the basis of standard deviation and hence project 'B' should be accepted having lower standard deviation, means less risky. **(6 Marks)**

**(b)** Return for the year (all changes on a per year basis)

| **Particulars** | **₹ /Unit** |
|---|---|
| Change in price (₹ 13.00 – ₹ 12.25) | 0.75 |
| Dividend received | 1.25 |
| Capital gain distribution | 1.00 |
| Total Return | 3.00 |

Return on investment = $\frac{3.00}{12.25} \times 100$ = 24.49%

*Alternatively*, it can also be computed as follows:

$$\frac{(NAV_1 - NAV_0) + D_1 + CG_1}{NAV_0} X 100$$

$$= \frac{(13 - 12.25) + 1.25 + 1.00}{12.25} X 100$$

= 24.49%

If all dividends and capital gain are reinvested into additional units at ₹ 12.50 per unit the position would be.

Total amount reinvested = ₹ 2.25 × 300 = ₹ 675

Additional units added = $\frac{₹\ 675}{12.50}$ = 54 units

Value of 354 units as on 31-12-2020 = ₹ 4,602

Amount paid for 300 units on 31-12-2019 (300 × ₹ 12.25) = ₹ 3,675

Return = $\frac{₹\ 4,602 - ₹\ 3,675}{₹\ 3,675} = \frac{₹\ 927}{₹\ 3,675}$ = 25.22% **(4 Marks)**

**(c)** There are numberless direct and indirect benefits of setting up IFC but some major benefits emanating from establishing IFC are as follows:

(i) Opportunity for qualified professionals working outside India come here and practice their profession.

(ii) A platform for qualified and talented professionals to pursue global opportunities without leaving their homeland.

(iii) Stops Brain Drain from India.

(iv) Bringing back those financial services transactions presently carried out abroad by overseas financial institutions/entities or branches or subsidiaries of Indian Financial Market.

(v) Trading of complicated financial derivative can be started from India.

**(4 Marks)**

**5. (a) (i)** $\beta_{asset} = \beta_{equity} \times \frac{V_E}{V_0} + B_{debt} \times \frac{V_D}{V_0}$

**Note:** Since $\beta_{debt}$ is not given it is assumed that company debt capital is virtually riskless.

If company's debt capital is riskless than above relationship become:

Here $\beta_{equity}$ = 1.5; $\beta_{asset} = \beta_{equity} \frac{V_E}{V_O}$

As $\beta_{debt}$ = 0

$V_E$ = ₹ 60 lakhs.

$V_D$ = ₹ 40 lakhs.

$V_0$ = ₹ 100 lakhs.

$\beta_{asset} = 1.5 \times \frac{60 \text{ lakhs}}{100 \text{ lakhs}}$

= 0.9

**(ii)** If only equity is used to finance the expansion, the Cost of Capital for discounting company's expansion of existing business shall be computed as follows:

Company's cost of equity = Rf + $\beta A \times$ Market Risk premium

Where Rf = Risk free rate of return

$\beta A$ = Beta of company assets

Therefore, company's cost of equity = 8% + 0.9 $\times$ 10% = 17% and overall cost of capital i.e. discounting rate for an expansion of company's present business shall also be 17%. **(8 Marks)**

**(b)** Final settlement amount shall be computed by using formula:

$$= \frac{(N)(RR - FR)(dtm/DY)}{[1 + RR(dtm/DY)]}$$

Where,

N = the notional principal amount of the agreement;

RR = Actual Reference Rate for the maturity specified by the contract prevailing on the contract settlement date;

FR = Agreed-upon Forward Rate; and

dtm = maturity period in days or months of the forward rate agreement

DY = Total number of days or month in a year as per convention

Accordingly,

i. If Banker pays to XY Ltd. an amount of ₹ 9,78,952.52 then actual interest shall be computed as follows:

$$₹\ 9,78,952.52 = \frac{(₹\ 100\ crore)(RR - 0.082)(3/12)}{[1 + RR(3/12)]}$$

RR = 0.086

Thus, the actual interest rate happens to be 8.60% on the settlement date.

ii. If XY Ltd. pays to Banker an amount of ₹ 9,80,872.98 then actual interest shall be computed as follows:

$$— ₹\ 9,80,872.98 = \frac{(₹\ 100crore)(RR - 0.082)(3/12)}{[1 + RR(3/12)]}$$

RR = 0.078

Thus, the actual interest rate happens to be 7.80% on the settlement date.

**(6 Marks)**

**6. (a)** The standard deviation of the daily change in the investment in each asset is ₹ 2,00,000 i.e. 2 lakhs. The variance of the portfolio's daily change is

$V = 2^2 + 2^2 + 2 \times 0.3 \times 2 \times 2 = 10.4$

σ (Standard Deviation) = $\sqrt{10.4}$ = ₹ 3.22 lakhs

***Alternatively,*** it can also be computed as follows:

$= (1)^2(0.50)^2 + (1)^2(0.50)^2 + 2(1)(1)(0.3)(0.50)(0.50)$

$= 0.25 + 0.25 + 0.15 = 0.65\%$

σ (Standard Deviation) = $\sqrt{0.65} = 0.80623\%$

σ (Standard Deviation) in Amount = ₹ 400 lakhs x 0.80623% = ₹ 3.22 lakhs

Accordingly, the standard deviation of the 10-day change is

₹ 3.22 lakhs x $\sqrt{10}$ = ₹ 10.18 lakh

Since 1% of a normal distribution lies more than 2.33 standard deviations below the mean. The 10-day 99 percent value at risk is therefore

2.33 × ₹ 10.18 lakh = ₹ 23.72 lakh **(4 Marks)**

**(b)** (a) **Calculation of Book Value Per Share**

| **Particulars** | **Weak Bank (W)** | **Strong Bank (S)** |
|---|---|---|
| Share Capital (₹ Lakhs) | 150 | 500 |
| Reserves & Surplus (₹ Lakhs) | 80 | 5,500 |
| | 230 | 6,000 |
| *Less:* Preliminary Expenses (₹ Lakhs) | 50 | -- |
| Net Worth or Book Value (₹ Lakhs) | 180 | 6,000 |
| No. of Outstanding Shares (Lakhs) | 15 | 50 |
| Book Value Per Share (₹) | 12 | 120 |

**Swap Ratio**

| | | | |
|---|---|---|---|
| Gross NPA | 5:40 | 5/40 x 30% | 0.0375 |
| CAR | 5:16 | 5/16 x 28% | 0.0875 |

| | | | |
|---|---|---|---|
| Market Price | 12:96 | 12/96 x 32% | 0.0400 |
| Book Value Per Share | 12:120 | 12/120x 10% | 0.0100 |
| | | | 0.1750 |

Thus, for every share of Weak Bank, 0.1750 share of Strong Bank shall be issued.

(b) **No. of equity shares to be issued:**

$\frac{150}{10} \times 0.1750 = 2.625$ lakh shares

(c) **Balance Sheet after Merger**

**Calculation of Capital Reserve**

| | |
|---|---|
| Book Value of Shares | ₹ 180.00 lac |
| Less: Value of Shares issued | ₹ 26.25 lac |
| Capital Reserve | ₹ 153.75 lac |

**Balance Sheet**

| | ₹ lac | | ₹ lac |
|---|---|---|---|
| Paid up Share Capital | 526.25 | Cash in Hand & RBI | 2900.00 |
| Reserves & Surplus | 5500.00 | Balance with other banks | 2000.00 |
| Capital Reserve | 153.75 | Investment | 20100.00 |
| Deposits | 48000.00 | Advances | 30500.00 |
| Other Liabilities | 3390.00 | Other Assets | 2070.00 |
| | **57570.00** | | **57570.00** |

**(d) Calculation CAR & Gross NPA % of Bank 'S' after merger**

$$\text{CAR / CRWAR} = \frac{\text{Total Capital}}{\text{Risky Weighted Assets}}$$

| | Weak Bank | Strong Bank | Merged |
|---|---|---|---|
| Capital Adequacy Ratio (CAR) | 5% | 16% | |
| Total Capital | ₹ 180 lac | ₹ 6000 lac | ₹ 6180 lac |
| Risky Weighted Assets | ₹ 3600 lac | ₹ 37500 lac | ₹ 41100 lac |

$$CAR = \frac{6180}{41100} \times 100 = 15.04\%$$

$$GNPA\ Ratio = \frac{Gross\ NPA}{Gross\ Advances} \times 100$$

| | Weak Bank | Strong Bank | Merged |
|---|---|---|---|
| GNPA (Given) | 0.40 | 0.05 | |
| | $0.40 = \frac{GNPA_R}{₹\ 3500\ lac}$ | $0.05 = \frac{GNPA_S}{₹\ 27000\ lac}$ | |
| Gross NPA | ₹ 1400 lac | ₹ 1350 lac | ₹ 2750 lac |

**(10 Marks)**