Mock Test Paper - Series II: April, 2025

Date of Paper: 5th April 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 (B)**
2. **Option (C)**
3. **Option (B)**
4. **Option (C)**
5. **Option (B)**
6. **Option (C)**
7. **Option (B)**
8. **Option (C)**
9. **Option (B)**
10. **Option (A)**
11. **Option (B)**
12. **Option (C)**
13. **Option (B)**
14. **Option (C)**
15. **Option (C)**

ANSWERS OF PART – II DESCRIPTIVE QUESTIONS

1. (a) (A) Receipt under three proposals

(i) Proposal of Mr. Peter

Invoicing in £ will produce = $\frac{€\ 2.8\ \text{million}}{1.1965}$ = £ 2.340 million

(ii) Proposal of Mr. Wilson

Forward Rate = € 1.1970-0.0055 = 1.1915

Using Forward Market hedge Sterling receipt would be $\frac{€2.8 \text{million}}{1.1915}$ = £ 2.35 million

(iii) Proposal of Ms. Karen

The equivalent sterling of the order placed based on future price (€1.1943)

$= \frac{€2.8 \text{million}}{1.1943}$ = £ 2,344,470 (rounded off)

Number of Contracts = $\frac{£2,344,470}{62,500}$ = 37 Contracts (to the nearest whole number)

Thus, € amount hedged by future contract will be = 37 × £ 62,500 = £ 23,12,500

Buy Future at	€ 1.1943
Sell Future at	€ 1.1873
	€ 0.0070

Total loss on Future Contracts = 37 × £ 62,500 × € 0.0070 = € 16,188

After 6 months

Amount Received	€ 28,00,000
Less: Loss on Future Contracts	€ 16,188
	€ 27,83,812

Sterling Receipts

On sale of € at spot = $\frac{€27,83,812}{1.1873}$ = £ 2.3446 million

(B) Proposal of option (ii) is preferable because the option (i) & (iii) produces least receipts. Further, in case of proposal (i) there must be a doubt as to whether this would be acceptable to German firm as it is described as a competitive market and Zaz is moving into it first time.

(b) No. of Shares = $\frac{₹\ 1{,}300\ \text{crores}}{₹\ 40}$ = 32.5 Crores

$$EPS = \frac{PAT}{No.of\ shares}$$

$$EPS = \frac{₹\ 290\ \text{crores}}{32.5\ \text{crores}} = ₹\ 8.923$$

FCFE = Net income – [(1-b) (capex – dep) + (1-b) (ΔWC)]

FCFE = 8.923 – [(1-0.27) (47-39) + (1-0.27) (3.45)]

= 8.923 – [5.84 + 2.5185] = 0.5645

Cost of Equity = R_f + ß (R_m – R_f)

= 8.7 + 0.1 (10.3 – 8.7) = 8.86%

$$Po = \frac{FCFE(1+g)}{K_e - g} = \frac{0.5645(1.08)}{0.0886 - .08} = \frac{0.60966}{0.0086} = ₹\ 70.89$$

(c) SPV is created for the purpose of executing the deal. Since issuer originator transfers all rights in assets to SPV, it holds the legal title of these assets. It is created especially for the purpose of securitization only and normally could be in form of a company, a firm, a society or a trust.

The main objective of creating SPV is to remove and ring fence the asset from the Balance Sheet of Originator. Since, SPV makes an upfront payment to the originator, it holds the key position in the overall process of securitization. Further, it also issues the securities [called Asset Based Securities (ABS) or Mortgage Based Securities (MBS)] to the investors.

2. **(a)** **(i)** Conversion Parity Price = $\frac{Bond\ Price}{No.of\ Shares\ on\ Conversion}$

$$₹\ 265 = \frac{5300}{No.of\ Shares\ on\ Conversion}$$

No. of Shares on Conversion = 20 Shares

(ii) Conversion Premium = $\frac{(Conversion\ Parity\ Price\ -\ Market\ Price)}{Market\ Price} \times 100$

$$10.41667\ \% = \frac{(265 - \text{Market Price})}{\text{Market Price}} \times 100$$

Market Price = ₹ 240

(iii) Percentage of Downside Risk

$$= \frac{\text{Market Price of Bond} - \text{Straight Value of Bond}}{\text{Staright Value of Bond}} \times 100$$

$$12.766\ \% = \frac{(5300 - SV)}{SV} \times 100$$

Straight Value of Bond = ₹ 4700

(iv) To determine the required return, we shall discount related cash flows as follows:

PV@8%

Year	Cash Flow	PVF	PV
0	- 4700	1	- 4700
1	375	0.9259	347.21
2	375	0.8573	321.49
3	375	0.7938	297.68
4	375	0.7350	275.63
5	5375	0.6806	3658.23
			200.23

PV@10%

Year	Cash Flow	PVF	PV
0	- 4700	1	- 4700
1	375	0.9091	340.91
2	375	0.8264	309.90
3	375	0.7513	281.74
4	375	0.6830	256.13
5	5375	0.6209	3337.34
			- 173.99

Calculation of Required return using IRR

$$= 8\% + \frac{200.23}{200.23 + 173.99} \times 2\%$$

$$= 8\% + \frac{200.23}{374.22} \times 2\% = 8\% + 1.07\% = 9.07\%$$

(b) EVA = Income Earned – (Cost of Capital x Total Investment)

Total Investments

	Amount (₹ Crore)
Net Worth	200.00
Long Term Debts	400.00
Patent Rights	100.00
Total	700.00

WACC (ko) $= k_e \times \frac{E}{E+D} + k_d \times \frac{D}{E+D}$

$$= 12 \times \frac{300}{700} + 10 \times \frac{400}{700}$$

= 5.14% + 5.71% = 10.85%

EVA = Profit Earned – WACC x Invested Capital

= ₹ 84 crore – 10.85% x ₹ 700 crore

= ₹ 8.05 crore

(c) A company can identify and manage counterparty risk effectively by recognizing potential warning signs and implementing risk mitigation techniques.

The various hints that may provide counter party risk are as follows:

(a) Failure to obtain necessary resources to complete the project or transaction undertaken.

(b) Any regulatory restrictions from the Government.

(c) Hostile action of foreign government.

(d) Let down by third party.

(e) Have become insolvent.

The various techniques to manage this type of risk are as follows:

(1) Carrying out Due Diligence before dealing with any third party.

(2) Do not over commit to a single entity or group or connected entities.

(3) Know your exposure limits.

(4) Review the limits and procedure for credit approval regularly.

(5) Rapid action in the event of any likelihood of defaults.

(6) Use of performance guarantee, insurance or other instruments.

3. (a) Number of index future to be sold by the Fund Manager is:

$$\frac{1.1\times 90,00,00,000}{4,300\times 50} = 4,605$$

Justification of the answer:

Loss in the value of the portfolio if the index falls by 10% is ₹ $\frac{11}{100}$x90 Crore = ₹ 9.90 Crore.

Gain by short covering of index future is: $\frac{0.1\times 4,300\times 50\times 4,605}{1,00,00,000}$ = 9.90 Crore

This justifies the answer. Further, cash is not a part of the portfolio.

(b)

	Principal (₹)	**MIBOR (%)**	**Interest (₹)**
Tuesday	15,00,00,000	8.12	33,370
Wednesday	15,00,33,370	7.75	31,856
Thursday	15,00,65,226	7.95	32,685
Friday	15,00,97,912	8.10	33,309
Saturday & Sunday (*)	15,01,31,221	8.12	66,798
Monday	15,01,98,019	8.15	33,537
Total Interest @ Floating			231,555
Less: Net Received			1420
Expected Interest @ fixed			2,30,135
Thus, Fixed Rate of Interest			0.08
Approx. i.e.			8%

(*) i.e. interest for two days.

(c) Four separate strategy options are feasible for exposure management. They are:

(a) Low Risk: Low Reward - This option involves automatic hedging of exposures in the forward market as soon as they arise, irrespective of the attractiveness or otherwise of the forward rate.

(b) Low Risk: Reasonable Reward- This strategy requires selective hedging of exposures whenever forward rates are attractive but keeping exposures open whenever they are not.

(c) High Risk: Low Reward- Perhaps the worst strategy is to leave all exposures unhedged.

(d) High Risk: High Reward- This strategy involves active trading in the currency market through continuous cancellations and re-bookings of forward contracts. With exchange controls relaxed in India in recent times, a few of the larger companies are adopting this strategy.

OR

Corporate level strategy fundamentally is concerned with selection of businesses in which a company should compete and with the development and coordination of that portfolio of businesses.

The key factors that influence corporate-level strategy decisions

(i) Suitability: Whether the strategy would work for the accomplishment of common objective of the company.

(ii) Feasibility: Determines the kind and number of resources required to formulate and implement the strategy.

(iii) Acceptability: It is concerned with the stakeholders' satisfaction and can be financial and non-financial.

4. (a) (i) Let the weight of stocks of Economy A be expressed as w, then

$(1- w) \times 10.0 + w \times 15.0 = 10.5$

i.e. $w = 0.1$ or 10%.

(ii) Variance of portfolio shall be:

$(0.9)^2 (0.16)^2 + (0.1)^2 (0.30)^2 + 2(0.9) (0.1) (0.16) (0.30) (0.30) = 0.02423$

Standard deviation is $(0.02423)^{½} = 0.15565$ or 15.6%.

(iii) The Sharpe ratio will improve by approximately 0.04, as shown below:

$$\text{Sharpe Ratio} = \frac{\text{Expected Return - Risk Free Rate of Return}}{\text{Standard Deviation}}$$

Investment only in developed countries: $\frac{10-3}{16} = 0.437$

With inclusion of stocks of Economy A: $\frac{10.5-3}{15.6} = 0.481$

(b) (i) Calculation of Income available for Distribution

	Units (Lakh)	Per Unit (₹)	Total (In ₹ lakh)
Income from April	600	0.1530	91.8000
Add: Dividend equalization collected on issue	12	0.1530	1.8360
	612	0.1530	93.6360
Add: Income from May		0.2250	137.7000
	612	0.3780	231.3360
Less: Dividend equalization paid on repurchase	6	0.3780	(2.2680)
	606	0.3780	229.0680
Add: Income from June		0.3000	181.8000
	606	0.6780	410.8680
Less: Dividend Paid		0.4746	(287.6076)
	606	0.2034	123.2604

(ii) Calculation of Issue Price at the end of April 2024

	₹
Opening NAV	37.5000
Add: Entry Load 2% of ₹ 37.500	0.7500
	38.2500
Add: Dividend Equalization paid on Issue Price	0.1530
	38.4030

(iii) Calculation of Repurchase Price at the end of May 2024

	₹
Opening NAV	37.5000
Less: Exit Load 2% of ₹ 37.50	(0.7500)
	36.7500
Add: Dividend Equalization paid on Issue Price	0.3780
	37.1280

(iv) NAV as on 30th June 2024

		₹ (Lakh)
Opening Net Asset Value (₹ 37.50 × 600)		22500.00
Portfolio Value Appreciation		1701.8800
Issue of Fresh Units (12 × 38.4030)		460.8360
Income Received (91.80 + 137.70 + 181.80)		411.3000
		25074.0160
Less: Units repurchased (6 × 37.128)	-222.7680	
Income Distributed	-287.6076	(-510.3756)
Closing Net Asset Value		24563.6404
Closing Units (600 + 12 – 6) lakh		606 lakh
∴ Closing NAV as on 30th June 2024		₹ 40.5341

5. (a) As per T Ltd.'s Offer

	₹ in lakhs
(i) Net Consideration Payable	
7 times EBIDAT, i.e. 7 x ₹ 115.71 lakh	809.97
Less: Debt	240.00
	569.97
(ii) No. of shares to be issued by T Ltd	
₹ 569.97 lakh/₹ 220 (rounded off) (Nos.)	2,59,000
(iii) EPS of T Ltd after acquisition	
Total EBIDT (₹ 400.86 lakh + ₹ 115.71 lakh)	516.57
Less: Interest (₹ 58 lakh + ₹ 30 lakh)	88.00
	428.57

Less: 30% Tax	128.57
Total earnings (NPAT)	300.00
Total no. of shares outstanding (12 lakh + 2.59 lakh)	14.59 lakh
EPS (₹ 300 lakh/ 14.59 lakh)	₹ 20.56
(iv) Expected Market Price:	
Pre-acquisition P/E multiple:	
EBIDAT (₹ in lakhs)	400.86
Less: Interest ($580 X \frac{10}{100}$)(₹ in lakhs)	58.00
	342.86
Less: 30% Tax (₹ in lakhs)	102.86
EAT (₹ in lakhs)	240.00
No. of shares (lakhs)	12.00
EPS	₹ 20.00
Hence, PE multiple $\frac{220}{20}$	11
Expected market price after acquisition (₹ 20.56 x 11)	₹ 226.16

As per E Ltd.'s Plan

		₹ in lakhs
(i)	**Net consideration payable**	
	6 lakhs shares x ₹ 110	660
(ii)	**No. of shares to be issued by T Ltd**	
	₹ 660 lakhs ÷ ₹ 220	3 lakh
(iii)	**EPS of T Ltd after Acquisition**	
	NPAT (as per earlier calculations)	300.00
	Total no. of shares outstanding (12 lakhs + 3 lakhs)	15 lakh
	Earning Per Share (EPS) ₹ 300 lakh/15 lakh	₹ 20.00
(iv)	**Expected Market Price** (₹ 20 x 11)	₹ 220.00

(v) Advantages of Acquisition to T Ltd.

Since the two companies are in the same industry, the following advantages could accrue:

— Synergy, cost reduction and operating efficiency.

— Better market share.

— Avoidance of competition

(b) Cost of Call and Put Options

= (₹ 2 per share) x (100 share call) + (₹ 1 per share) x (100 share put)

= ₹ 2 x 100 + 1 x 100

= ₹ 300

(i) Price increases to ₹43. Since the market price is higher than the strike price of the call, the investor will exercise it.

Ending position = (- ₹ 300 cost of 2 option) + (₹ 1 per share gain on call) x 100

= - ₹ 300 + 100

Net Loss = - ₹ 200

(ii) The price of the stock falls to ₹36. Since the market price is lower than the strike price, the investor may not exercise the call option.

Ending Position = (- ₹300 cost of 2 options) + (₹4 per stock gain on put) x 100 = - ₹300 + 400

Gain = ₹100

6. **(a)** First, we shall compute the discount rate to calculate the NPV of the project.

(1+Risk Premium) (1+Normal Discounting Rate) = (1+Required Rate)

(1.083) (1.108) = (1+Required Rate)

Required Rate = 0.20 i.e. 20%

Calculation of NPV

Year	0	1	2	3
Inflation factor in India	1.00	1.10	1.21	1.331
Inflation factor in Africa	1.00	1.40	1.96	2.744
Exchange Rate (as per IRP)	6.00	7.6364	9.7190	12.3696
Cash Flows in ₹'000				
Nominal (1)	-200000	-6600	-10000	-13000

Cash Flows in African Rand '000				
Nominal	-800000	280000	550000	1000000
In Indian ₹'000 (2)	-133333	36666	56590	80843
Net Cash Flow in ₹ '000 (1) + (2)	-333333	30066	46590	67843
PVF@20%	1	0.833	0.694	0.579
PV	-333333	25045	32333	39281

NPV of 3 years = -236674 (₹ '000)

NPV of Terminal Value = $\frac{67843}{0.20} \times 0.579 = 196405$ (₹'000)

Total NPV of the Project = -236674 (₹ '000) + 196405 (₹'000) = - 40269 (₹'000)

(b) **(i)** On the basis of standard deviation project X be chosen because it is less risky than Project Y having higher standard deviation.

(ii) $CV_x = \frac{SD}{ENPV} = \frac{90,000}{1,22,000} = 0.738$

$CV_y = \frac{1,20,000}{2,25,000} = 0.533$

On the basis of Co-efficient of Variation (C.V.) Project X appears to be riskier and hence Y should be accepted.

(iii) However, the NPV method in such conflicting situation is best because the NPV method is in compatibility of the objective of wealth maximisation in terms of time value.

(c) Venture Capital Fund means investment vehicle that manage funds of investors seeking to invest in startup firms and businesses with exceptional growth potential. Venture capital is money provided by professionals who alongside management invest in young, rapidly growing companies that have the potential to develop into significant economic contributors.

- It injects long- term equity finance which provides a solid capital base for future growth.

- The venture capitalist is a business partner, sharing both the risks and rewards. Venture capitalists are rewarded with business success and capital gain.
- The venture capitalist is able to provide practical advice and assistance to the company based on past experience with other companies which were in similar situations.
- The venture capitalist also has a network of contacts in many areas that can add value to the company.
- The venture capitalist may be capable of providing additional rounds of funding should it be required to finance growth.
- Venture capitalists are experienced in the process of preparing a company for an Initial Public Offering (IPO) of its shares onto the stock exchanges or overseas stock exchange such as NASDAQ.
- They can also facilitate a trade sale.