

MOCK TEST PAPER 2
FINAL (NEW) COURSE: GROUP – II
PAPER – 6B: FINANCIAL SERVICES AND CAPITAL MARKETS
SOLUTIONS

ANSWERS TO CASE STUDY: 1**Solution to Question no. 1****Option A (Buying an asset)**

The loan amount is repayable together with the interest at the rate of 12% on loan amount and is repayable in equal installments at the end of each year. The PVAF at the rate of 12% for 5 years is 3.605, the amount payable will be:

$$\text{Annual Payment} = \frac{\text{₹ } 20,00,000}{3.605} = \text{₹ } 5,54,785 \text{ (rounded)}$$

Schedule of Debt Repayment

End of Year	Total Payment ₹	Interest ₹	Principal ₹	Principal Amount Outstanding ₹
1	5,54,785	2,40,000	3,14,785	16,85,215
2	5,54,785	2,02,226	3,52,559	13,32,656
3	5,54,785	1,59,919	3,94,866	9,37,790
4	5,54,785	1,12,535	4,42,250	4,95,540
5	5,54,785	59,465	4,95,540*	-----

* Balancing Figure (approximate figure considering the decimal places)

Schedule of Cash Outflows: Debt Alternative

(Amount in ₹)

(1)	(2)	(3)	(4)	(3) + (4)	(5)	(6)	(7)	(8)
End of year	Debt Payment	Interest	Dep		Tax Shield [(3)+(4)] 0.30	Cash outflows (2) – (5)	PV factors @ 10%	PV
1	5,54,785	2,40,000	3,00,000	5,40,000	1,62,000	3,92,785	0.909	3,57,042
2	5,54,785	2,02,226	2,55,000	4,57,226	1,37,168	4,17,617	0.826	3,44,952
3	5,54,785	1,59,919	2,16,750	3,76,669	1,13,001	4,41,784	0.751	3,31,780
4	5,54,785	1,12,535	1,84,238	2,96,773	89,032	4,65,753	0.683	3,18,109
5	5,54,785	59,465	1,56,602	2,16,067	64,820	4,89,965	0.621	3,04,268
Less: PV of Salvage Value								16,56,151
								1,24,200
								15,31,951

Total present value of Outflows = ₹ 15,31,951

Option B (To take an asset on lease)

Lease Rent	6,60,000
Tax Shield (6,60,000 x 0.30)	<u>(1,98,000)</u>
Outflow	<u>4,62,000</u>
	× 3.791 (PV Factor at 10%)
	₹ 17,51,442

Since PV of outflows is lower in the borrowing option, ABC Ltd. should avail of the loan and purchase the equipment.

Solution to Question no. 2

As per regulation 4 (1) of the SEBI (Insider Trading Regulations), 2015, no insider shall trade in securities that are listed or proposed to be listed on a stock exchange when in possession of unpublished price sensitive information. Further, when a person who has traded in securities has been in possession of unpublished price sensitive information, his trades would be presumed to have been motivated by the knowledge and awareness of such information in his possession.

However, the insider may prove his innocence by demonstrating the circumstances including the following: –

- (i) the transaction is an off-market *inter-se* transfer between insiders who were in possession of the same unpublished price sensitive information without being in breach of regulation 3 of the said regulations and both parties had made a conscious and informed trade decision.

Provided that such unpublished price sensitive information was not obtained under sub-regulation (3) of regulation 3 of these regulations.

Provided further that such off-market trades shall be reported by the insiders to the company within two working days. Every company shall notify the particulars of such trades to the stock exchange on which the securities are listed within two trading days from receipt of the disclosure or from becoming aware of such information.

- (ii) the transaction was carried out through the block deal window mechanism between persons who were in possession of the unpublished price sensitive information without being in breach of regulation 3 and both parties had made a conscious and informed trade decision;

Provided that such unpublished price sensitive information was not obtained by either person under sub-regulation (3) of regulation 3 of these regulations.

- (iii) the transaction in question was carried out pursuant to a statutory or regulatory obligation to carry out a bona fide transaction.

- (iv) the transaction in question was undertaken pursuant to the exercise of stock options in respect of which the exercise price was pre-determined in compliance with applicable regulations.

Hence, in view of the above, Amit and Sumit are required to keep in mind regulation 3 and 4 of the Insider Trading regulations and ensure they are fully complied with.

Solution to Question no. 3

As per regulation 9 (1) of the SEBI (Insider Trading Regulations), 2015, the board of directors of every listed company and the board of directors or head(s) of the organization of every intermediary shall ensure that the chief executive officer or managing director shall formulate a code of conduct with their approval to regulate, monitor and report trading by its designated persons and immediate relatives of designated persons towards achieving compliance with these regulations.

It is intended that every company whose securities are listed on stock exchanges and every intermediary registered with SEBI is mandatorily required to formulate a code of conduct governing trading by designated persons and their immediate relatives. The standards set out in the schedules are required to be addressed

by such code of conduct.

The designated persons as mentioned above shall include:

- (i) Employees of such listed company, intermediary or fiduciary designated on the basis of their functional role or access to unpublished price sensitive information in the organization by their board of directors or analogous body;
- (ii) Employees of material subsidiaries of such listed companies designated on the basis of their functional role or access to unpublished price sensitive information in the organization by their board of directors;
- (iii) All promoters of listed companies and promoters who are individuals or investment companies for intermediaries or fiduciaries;
- (iv) Chief Executive Officer and employees upto two levels below Chief Executive Officer of such listed company, intermediary, fiduciary and its material subsidiaries irrespective of their functional role in the company or ability to have access to unpublished price sensitive information;
- (v) Any support staff of listed company, intermediary or fiduciary such as IT staff or secretarial staff who have access to unpublished price sensitive information.

Solution to Question no. 4

- (i) (d)
- (ii) (a)
- (iii) (d)
- (iv) (d)
- (v) (c)

ANSWERS TO CASE STUDY: 2

Solution to Question no. 1

The process through which Sudbuddhi will get the acquired shares in his Demat Account is explained as follows:

Day 1 – The trade (T Day), Monday

The total buy value is ₹150,000/- (100 x 1500). The day the transaction is made is referred to as the trade date, represented as 'T Day'.

By the end of trade day, Sudbuddhi's broker will debit ₹150,000/- and the applicable charges towards his purchase. Further, the money goes out of his account, but the stock will not come into his DEMAT account yet.

Also, on the same day, the broker generates a 'contract note' and sends a copy. A contract note is like a bill generated detailing every transaction he has made. This is an important document that is worth saving for future reference. A contract note typically shows a break up of all transactions done during the day along with the trade reference number. It also shows the breakup of charges charged by the broker.

Day 2 – Trade Day + 1 (Tuesday)

From Sudbuddhi's perspective, nothing happens on T+1 day. However, in the background, the money required to purchase the shares is collected by the stock exchange and also the exchange transaction charges and Security transaction tax.

Day 2 – Trade Day + 2 (Wednesday)

On day 3 or the T+2 day, around 11 AM, shares are debited from the person who sold the shares and credited to the brokerage with whom Sudbuddhi is trading, who will in turn credit it to his DEMAT account by the end of the day. Similarly, money that was debited from him is credited to the person who sold the shares.

The shares will now start reflecting in the DEMAT account indicating that Sudbuddhi own 100 shares of Infosys Limited.

So, for all practical purposes, if Subdbuddhi buy a share on T Day, he can expect to receive the shares in his DEMAT account only by the end of T+2 day. The shares are available for a transaction on T+3 day.

Solution to Question no. 2

Market experts are of the opinion that foreign investors may face some difficulties while shifting from T + 2 to T + 1. The problem is, investors based overseas in different time zones will face serious difficulties in managing trade reconciliation and settlement in this shorter cycle. The working day ends several hours earlier than in Mumbai for foreign portfolio investors (FPIs) based in Tokyo or Singapore. It starts several hours later for FPIs based in New York or London. In addition, overseas investors can face delays in cross-border transfers and reconciliation due to differences in working hours for different banking systems and depositories. Plus, there can be issues related to differences in mandated holidays.

Hence, overseas investors could end up in technical default, or their counterparties may end in technical default, in coping with a T + 1 cycle. A full-scale transition to T + 1 will require coordinated, expensive, and complex structural changes to settlement processes, which may be unrealistic in the timeframe of January 2022. These time-zone differences are a primary reason why major financial exchange have tended to retain T + 2 cycles, despite the theoretical advantages of T + 1. In the US, for instance (there are multiple time zones in US), equity is traded on T + 2 while money market is settled at T + 1. Taiwan tried T + 1 and reverted to T + 2, due to such difficulties.

Furthermore, even under the current T + 2 settlement cycle, timely and precise coordination across multiple parties and across time zones can be challenging especially when there is a trade mismatch. T + 1 would be even more challenging. Changing the settlement cycle to T + 1 may also require that the foreign exchange would need to be booked on T Day for local custodians to confirm the trades on the trade date. Failure in trade matching may result in the settlement obligation being borne by the domestic broking houses.

Also, bank holidays and days when the clearing corporation is not working but the stock markets are open can also pose some challenges. In case of the latter, clearing corporation could be burdened with the task of doing two settlements, one for the previous day and the other for the current working day and meeting a T + 1 timeline would be difficult.

In spite of some of the problems which FPIs may encounter while moving to T+ 1 as discussed above, it was also viewed by some of the market experts that FPIs have been investing in the derivatives market since 1999, where upfront payments are required. Also, they invest in the Initial Public Offer (IPO) market where money is blocked for seven days. Even the clearing corporation has floated discussion paper to move towards T + 1 settlement. Therefore, it is something that is desirable to everyone.

Moreover, automated systems for reconciliation have improved a great deal in the recent past. Delays in cross-border transactions have also reduced. SEBI has stayed with the T + 2 cycle since 2003, and while it works well enough, T + 1 could lead to significant reductions in friction for traders. So, it seems that offering a phased optional transition is a pragmatic decision.

Solution to Question no. 3

The transition from T + 2 settlement cycle to T + 1 is expected to bring some significant benefits. The shift to this shorter cycle will bring quicker cash flows and faster security transfers. It will also reduce the chances of default and also enable increase in trading volumes as it will free up margin capital and securities faster. Further, the price risks in volatile stocks will also reduce. So, this shift to T + 1 from the present T + 2 settlement regime is expected to benefit the market in the situation of high stress and volatility.

The stock market regulator, SEBI, is also of the view that there is a need to reduce the settlement cycle further now as there has been significant reforms in the payment and banking system. Further, investors have the right to receive what they purchase as quickly as possible.

However, certain safeguards have to be taken while shifting to T + 1 settlement cycle. The stock exchange can pick a basket of scrips for T + 1 and see how the new system works in practice. Most likely, exchanges

will start “test runs” by picking stocks, which don’t have a large FPI presence and, thus, gauge the impact of the new settlement. If some problems start appearing, corrective action can be taken without freeing the entire market. If the anticipated benefits of higher liquidity and lower risk are outweighed by the time-zone mismatches, the regulator can always revert to the earlier plan.

Solution to Question 4:

- (i) (b)
- (ii) (c)
- (iii) (c)
- (iv) (d)
- (v) (b)

ANSWERS TO CASE STUDY: 3

Solution to Question 1:

Particulars	₹
Estimated Receivables	1,00,00,000
Estimated Receivables under Factor $\left(6,00,00,000 \times \frac{30}{300}\right)$	60,00,000
Reduction in Receivables $(₹ 1,00,00,000 - ₹ 60,00,000)$	40,00,000

Total Savings (A)

Reduction in finance costs $₹ 40,00,000 @ 6\%$	2,40,000
Saving of Administration costs	2,00,000
Saving of Bad debts	6,00,000
Total	10,40,000

Total Cost of Factoring (B)

Interest on advances by Factor		
Advances 60,00,000 @ 80%	₹ 48,00,000	
Interest on ₹ 48,00,000 @ 8%	₹ 3,84,000	
Overdraft Interest rate @ 6%	<u>(₹ 2,88,000)</u>	96,000
Charges payable to Factor (₹ 6,00,00,000 @ 1.50%)		9,00,000
Total		<u>9,96,000</u>

Net Saving (A) – (B) **44,000**

Since, Net Saving is positive, the proposal is viable and can be accepted.

Solution to Question 2:

In Freak Trading, the market can go up and down in a few microseconds. High Net Worth Individuals (HNIs), High Frequency Traders (HFTs) and Algo trader are generally alleged for such incidents as they have all the necessary resources and information which helps them in initiating such trades.

The most dangerous thing about Freak Trading is that its movement is not recorded on the chart, because the movement in price takes place in microseconds. Where a retail trader can place 4 to 5 orders in 1 second, HFT can place 200 orders in a second. HFT takes full advantage of this and gullible traders become victims of this movement.

Steps to avoid freak trades:

1. Use Limit Orders instead of Market Orders.
2. Avoid placing stop losses at obvious price levels. Usually, most pending SLs are concentrated around significant price levels. It is better to place SL orders either above or below the most obvious price.
3. Use SL-L with a broad range instead of SL-M. The max limit price in an SL-L will insulate you because, entering a pre-defined order execution range, trades beyond the range will be invalidated for your pending order.
4. Avoid heavily concentrated positions in one contract. Instead, trade several contracts. The likelihood of freak trades happening in multiple scrips at the same time is minimal. This will further reduce its impact on your trading portfolio; if it ever occurs.

Solution to Question 3:

The composition of board of directors of the listed entity shall be as follows:

- (a) board of directors shall have an optimum combination of executive and non executive directors with at least one-woman director and not less than fifty per cent. of the board of directors shall comprise of non-executive directors;

Provided that the Board of directors of the top 500 listed entities shall have at least one independent woman director by April 1, 2019 and the Board of directors of the top 1000 listed entities shall have at least one independent woman director by April 1, 2020;

Explanation: The top 500 and 1000 entities shall be determined on the basis of market capitalization, as at the end of the immediate previous financial year.

- (b) where the chairperson of the board of directors is a non-executive director, at least one-third of the board of directors shall comprise of independent directors and where the listed entity does not have a regular non-executive chairperson, at least half of the board of directors shall comprise of independent directors:

Provided that where the regular non-executive chairperson is a promoter of the listed entity or is related to any promoter or person occupying management positions at the level of board of director or at one level below the board of directors, at least half of the board of directors of the listed entity shall consist of independent directors.

In view of the above, it can be said that Shikshak Ltd should have minimum six directors.

Solution to Question 4:

- (i) (b)
(ii) (a)
(iii) (d)
(iv) (b)
(v) (d)

ANSWERS TO CASE STUDY: 4**Solution to Question 1:****(a) NAV of the Fund**

$$\begin{aligned} &= \frac{\text{₹ } 4,54,000 + \text{₹ } 5,02,60,000 + \text{₹ } 58,88,000 + \text{₹ } 13,93,80,000 + \text{₹ } 21,54,000}{10,00,000} \\ &= \frac{\text{₹ } 19,81,36,000}{10,00,000} = \text{₹ } 198.136 \end{aligned}$$

(b) The revised position of fund shall be as follows:

Shares	No. of shares	Price	Amount (₹)
A Ltd.	20,000	22.70	4,54,000
B Ltd.	1,00,000	502.60	5,02,60,000
C Ltd.	40,000	294.40	1,17,76,000
D Ltd.	2,00,000	696.90	13,93,80,000
E Ltd.	60,000	35.90	21,54,000
Cash			<u>1,12,000</u>
			<u>20,41,36,000</u>

$$\text{No. of units of fund} = 10,00,000 + \frac{60,00,000}{198.136} = 10,30,282$$

(c) On 2nd April 2019, the NAV of fund will be as follows:

Shares	No. of shares	Price	Amount (₹)
A Ltd.	20,000	25.30	5,06,000
B Ltd.	1,00,000	533.70	5,33,70,000
C Ltd.	40,000	310.80	1,24,32,000
D Ltd.	2,00,000	707.90	14,15,80,000
E Ltd.	60,000	54.20	32,52,000
Cash			<u>1,12,000</u>
			<u>21,12,52,000</u>

$$\text{NAV as on 2nd April 2019} = \frac{\text{₹ } 21,12,52,000}{10,30,282} = \text{₹ } 205.043 \text{ per unit}$$

Solution to Question 2:

Some of the products of insurance companies provide guaranteed return. However, due to fluctuation in the interest rates, returns can come down. This can put pressure on the finances of the companies.

As per the guidelines, the objective of any use of the listed derivatives is that they must be used for hedging purposes only to reduce the interest rate risk.

Insurers are permitted to enter Forward Rate Agreements (FRAs), Interest Rate Swaps (IRS) and Exchange Traded Interest Rate Futures (IRF) with a maximum tenure of one year. As per the final guidelines insurers would be able to participate in interest rate derivatives over one year. However, there is no upper cap for maturities of such instruments.

Participation in interest rate derivatives would help such companies to protect their return due to fluctuation in the interest rates and protect financial health.

By not hedging currency risks, participants involved in global trade can run the risk of adversely affecting profits and competitiveness. Currency derivative contracts allow hedgers and investors to take positions on any change in the foreign exchange rates between currencies pairs, such as rupee and dollar. Under the current regulations, participants can take exposure up to a single limit of \$100 million equivalent across all currency pairs involving the rupee, put together, and combined across all exchanges, without having to establish existence of underlying exposure.

One of the most potent ways to reduce credit default is to employ credit default swap. Under this arrangement, one party (called buyer) needing protection against the default pays a periodic premium to another party (called seller), who in turn assumes the default risk. Hence, in case default takes place then there will be settlement and in case no default takes place no cash flow will accrue to the buyer alike option contract and

agreement is terminated. Although it resembles the options but since element of choice is not there it more resembles the swap arrangements. Amount of premium mainly depends on the price of underlying and especially when the credit risk is more.

Solution to Question 3:

Catastrophe bonds are investment securities that incorporate aspects of insurance products. Companies use these bonds to protect themselves from financial losses in cases of major natural disasters like hurricanes and earthquakes. Investors buy these high-yield bonds in hopes that the underlying disasters don't occur. If the disasters don't occur, they can keep the profits without having to pay to cover the company's disaster-related losses.

To understand how catastrophe bonds work, it may be helpful to start with a refresher of how bonds work in general. Bonds are debt obligations issued by entities, such as corporations or governments. When you buy an individual bond, you are essentially lending your money to the entity for a stated period.

In exchange for your loan, the entity will pay you interest until the end of a set date (the bond's "maturity date"). At maturity, the investor is repaid the full amount of the original investment (the "loan" or the "principal").

Cat bond investors will allow the issuing company to hold their principal in return for interest payments throughout the lifetime of the bond. In the event of a covered catastrophe, the issuing company may temporarily halt interest payments, or it may not be responsible for paying back the principal at all. In other words, the principal is "forgiven" from the perspective of the company. From the perspective of the investor, the principal is simply lost.

Catastrophe bonds can be broad, but they usually cover a specific disaster, and they may also impose a threshold of damages. For instance, a cat bond may cover earthquake damages beyond \$10 million, or it may cover thunderstorm damage to a specific region.

Solution to Question 4:

- (i) (c)
- (ii) (b)
- (iii) (d)
- (iv) (b)
- (v) (b)

ANSWERS TO CASE STUDY 5

Solution to Question No. 1

The real concern is Google's involvement in it. The RBI is suspicious of BigTech, which includes Google, Facebook, Apple, Amazon and Microsoft, since these companies are in the RBI's words, "too big to fail" and difficult to regulate. They have the funds, the technology and a global network to do enormous good in whichever field they enter – or cause a complete meltdown if they so choose.

The financial system in India is built over decades of careful regulations, and banks are not allowed to do anything that can threaten financial stability. Big Tech firms, if handled well, can disrupt that in a matter of months, if not weeks. The experience of developed countries shows that these companies, with cash holdings equivalent to the economy of many small nations and which command the technology that runs modern civilization, are not easy to rein in.

Google is already the leader in UPI, a payment mode that processed 3.5 billion transactions worth ₹ 6.4 trillion in August 2021. Apps by banks, which are closely monitored by the RBI, are as it is barely used for payment purposes.

The same can happen for other banking products as well, starting with deposits – the most sensitive of products. Left unchecked, all banks may end up having a Spot or QR code each on Big Tech platforms. That

may lead to Big Tech firms becoming the term-setters for banks. The platforms can then yank on any bank out of the system for not meeting the criteria set by the tech firm. Customers, comfortable with using the tech firm's app, may not bother going back to any bank that is not a part of the ecosystem, and the bank may fail. In an interconnected world, the entire financial system can go down with it. Besides, the for-profit tech giants can end up having a say in public policy matters, which is, to say the least, dangerous.

Solution to Question No. 2

Any new financial transaction is open to risks, and these new partnerships will also bring new risks to the financial system. A fintech combines the bank's infrastructure with its technology, and offers services to customers. Further, the customers interact with fintech, while the bank remains in the background. This allows the partnership to gain new customers, and diversify their portfolio something which is not possible for a traditional bank.

Moreover, the Fintech players may be dynamic and innovative, but they are mostly out of the regulatory net, and most of them will not be well-capitalised. If a fintech fails, it could put pressure on the partnering bank, and even lead to failure of the partnering bank. So, the RBI would do well by looking at this Equitas-Google Pay deal closely.

Furthermore, there is a need to integrate the fintech players with the traditional players. So far, the broader outlook is to see these players as mere competitors or threats to the existing system. This requires a change in mindset for a more open approach. There will be risks, but that is part and parcel of any new financial development.

Solution to Question No. 3

Capital markets regulator SEBI (Securities and Exchange Board of India) has approved in its board meeting for changing the concept of company 'promoters', and moving towards the idea of 'person in control'. The move comes as an increasing number of companies adopt corporate structures where there is more than just a single owner. Some firms also have institutional investors and private equity players holding more sway than those listed as promoters.

Amid changing investor landscape in India, SEBI suggested that there is a need for revisiting the concept of 'promoter' to a concept of 'person in control' and a period of three years has been proposed for such a shift over in a smooth and progressive manner without causing any disruption.

Also, SEBI noted that increased focus on the quality of board and management has reduced the relevance of the concept of promoter.

SEBI also stated that unlike the past, the concentration of ownership and controlling rights does not vest completely in the hands of the promoters or the promoter group. There has been a significant increase in the number of private equity and institutional investors who invest in companies and take up substantial shareholding, and in some cases, control.

Such private equity and institutional investors invest in unlisted companies and continue to hold shares post listing, many times being the largest public shareholders, having special rights on the listed company, such as the right to nominate directors, it further added.

Moreover, a number of businesses, including new age and tech companies, are non-family owned and do not have a distinctly identifiable promoter group.

Solution to Question No. 4

- (i) (d)
- (ii) (d)
- (iii) (c)
- (iv) (c)
- (v) (a)