

Test Series: May 2020

**MOCK TEST PAPER 1**  
**FINAL (NEW) COURSE: GROUP – II**  
**PAPER – 6B: FINANCIAL SERVICES AND CAPITAL MARKETS**

**Solutions**

**Note: Please note these solutions are for guidance purpose only.**

**ANSWERS TO CASE STUDY: 1**

1.1 The CRAs can be monitored better to make them responsible for maintaining a rating. They can be made to function with common parameters so that what is stated by one CRA means the same across all CRAs. As of today, each CRA has a different system of rating, though, broadly, a 'high' rating by one also would mostly be high by another. However, standardization across agencies by adopting compulsory parameters and industry specific parameters should be made.

CRAs may be made to publish cumulative default rates.

CRAs may be made to publish the extent of risk in asset-liability mismatch by designing standard parameters for evaluation and reporting.

Data of default must flow immediately from the point of default to the CRAs so that they take the danger signal seriously and trigger better monitoring processes. Such triggers should also be standardized.

CRAs must be made to report a revised rating as on the date of default, within a reasonably short stipulated period. They may retain the earlier rating and not downgrade it due to a single lapse, but instead of the current passive concurrence to the earlier rating, they should actively publish the revised rating, be it same or different.

The CRAs should have a procedure to work out a probable default rate in the short, medium and long term. The high ratings especially should be intensely monitored since users assume almost no risk of default and are often surprised by bankruptcy. Ripples of such shocks affect even common man in the form of mutual fund investments.

The rating system and reporting should be revamped to capture individual instruments, the parent organization, subsidiary, prominent borrowers, associates, etc. in a fashion that enables a user find out readily the sensitivity of a particular organization to defaults of organization connected to it. Then, based on this sensitivity analysis, the most sensitive factors may be watched out more intensely.

CRAs must also be made to take cognizance of certain accounting ratios affecting liquidity and revalidate or revise their ratings if necessary. Thus instances of short term borrowings leaping up and not being noticed and reported will not happen (in this case, short term borrowings stepped up by 30 % and went unnoticed while yet being within law or regulation). Accountability will have to be fixed so that CRAs take note of these matters.

CRAs are being paid by the companies issuing debt for the rating done by them. Instead, there can be a central organization which charge companies for the rating and compensate the credit rating agencies for rating done by them.

Many financial institutions are capable of making their own research about the credit worthiness of the bond issuer. SEBI is also encouraging the asset managers to build their internal research capabilities. These parameters should be compared with those of the CRAs by a central organization so that points of variations can invite attention and if need be, revision in the ratings.

**(5 Marks)**

**1.2** The fundamental mess was created by the management (or rather mismanagement). CRAs and auditors come in as reporters and highlighters of the mess.

While infrastructure sector has an inherently long gestation period, a liquidity crisis in spite of institutional support (LIC/SBI) for the parent is clearly financial mismanagement.

The system under SEBI, RBI, CRAs, Companies Act, audits (both statutory and internal audits), are broadly in place to send out enough warning signals. Persons at the helm have decided to hide events and adopted unfair, unethical strategies to continue to raise money without accountability and have chosen to abandon the organisation in the wake of the impending crisis after unfairly enriching themselves.

Though the SFIO has not yet nailed fraudulent motives, the facts intentionally hidden from overseeing authorities which have led to the sudden crumble, affecting a large section of the ordinary people cannot be let go lightly.

According to me, the system is in place for early warning, like a burglar alarm. Fraud has covered it up like switching off the alarm before thieving.

Asset- liability mismatch and consequent mismanagement was an important reason.

Short term funds were used for long term investments, which is clearly against the rules of financial prudence. It was not corrected in time even after a 30% increase in short term borrowings. The debt trap was thus inevitable.

The allegation of the role of the corporate structure consisting of multiple layers of holding and subsidiary companies may have helped the management mask the pointed findings of an impending debt crisis. The structure may not have been faulty by itself, but it could have been used as an instrument to hide the insolvency crisis for some period till it surfaced.

**(2 Marks)**

The financial mess could have been better addressed by:

- ❖ Issuing long term instruments with roll-over facilities.
- ❖ The fund flow planning for each project could have been done with care and calculations to match assets with liabilities.
- ❖ The auditors should have been able to see and report the impending crisis while taking particular note of the debt non-servicing.
- ❖ Fresh issues of CPs were in violation of RBI regulations. RBI should have taken action on fresh issue while older issues had defaulted.
- ❖ The CRA should have used better market intelligence and surveillance and should have been able to gauge company's financial irregularities.
- ❖ The company could have a proper Risk Management system so that the problem can be detected at an early stage
- ❖ Most importantly, the management should have been honest and not tried to resort to unfair self-enrichment using public money.

**(1 Mark for each correct point = Max. 3 Marks)**

**1.3** CAMEL Stands for Capital, Assets, Management, Earnings and Liquidity. The CAMEL model adopted by the Rating Agencies deserves special attention; it focuses on the following aspects:

- 1) Capital – Composition of Retained Earnings and External Funds raised; Fixed dividend component for preference shares and fluctuating dividend component for equity shares and adequacy of long term funds adjusted to gearing levels; ability of issuer to raise further borrowings.
- 2) Assets – Revenue generating capacity of existing/proposed assets, fair values, technological/ physical

obsolescence, linkage of asset values to turnover, consistency, appropriation of methods of depreciation and adequacy of charge to revenues. Size, ageing and recoverability of monetary assets viz receivables and its linkage with turnover.

- 3) Management – Extent of involvement of management personnel, team-work, authority, timeliness, effectiveness and appropriateness of decision making along with directing management to achieve corporate goals.
- 4) Earnings – Absolute levels, trends, stability, adaptability to cyclical fluctuations ability of the entity to service existing and additional debts proposed.
- 5) Liquidity – Effectiveness of working capital management, corporate policies for stock and creditors, management and the ability of the corporate to meet their commitment in the short run.

**(1 Mark for each correct point = Max. 5 Marks)**

These five aspects form the five core bases for estimating credit worthiness of an issuer which leads to the rating of an instrument. Rating agencies determine the pre-dominance of positive /negative aspects under each of these five categories and these are factored in for making the overall rating decision.

The Camel Model is basically used in case of banking companies. Since, operations of banking companies are quite large and complicated; it seems that this model can also be used in case of large public offerings of debt securities.

### **Alternative Solution**

Camel stands for Capital, Assets, Management, Earnings, and Liquidity.

- (a) Capital signifies the shareholder's Equity and primarily is the long term funds available in an enterprise. The philosophy of accumulation of reserve and retained earnings for funding long term assets will be a noteworthy aspect.
- (b) Evaluation of Assets should include fair values, physical/ technological obsolescence etc.
- (c) Management – the quality of management personnel, the corporate goals, the authority matrix, effectiveness of decision making will all be considered and evaluated.
- (d) Earnings – The level and trend of earnings, ability to service the existing and the proposed debts will all have to undergo due diligence.
- (e) Liquidity – How well the working capital requirements and cash flow situations are managed and how well is ALM issues are addressed.

**(1 Mark for each correct point = Max. 5 Marks)**

CAMEL is a basic due diligence model and works well for most Credit rating situations. However, for large public offerings of investment securities, CRAs must use market intelligence and also keep their eyes and ears open for nay market, industry, company related information that may have a bearing on the company's ability to service the debts.

1.4 (B)

1.5 (D)

1.6 (C)

1.7 (B)

1.8 (C)

**ANSWERS TO CASE STUDY: 2**

**2.1** Blue Diamond is preferred because:

Blue Diamond's post money valuation = 600 cr (Rs, = 16 x audited PAT of Jeet, which means Jeet's audited PAT = 37.5).

Pre-money value will be  $600 - 150 = 450$ .

Pre-money valuation of Jeet's business is  $450/37.5 = 12$  times the PAT by Blue Diamond.

Aquarius's pre-money value = 396 cr (max) which is 10.56 times the audited PAT.

Thus Blue Diamond offers a better valuation of the existing business of Jeet.

**Or**

Blue Diamond offers higher valuation of the company Jeet at 16 x while Aquarius has a value only at 12 X.

Aquarius appears to be paying only  $22 + 11 + 11 = 44$  crores, which is also substantiated by pre-money to post money spread  $(440-396) = (340-296)$ , whereas Blue Diamond is funding Rs. 150 crores.

Hence there is almost 3 times more funding by Blue Diamond.

Blue Diamond only demands the right of first refusal, while Aquarius demands that Jeet sells an equal quantity of shares as held by Aquarius even to a competitor in case IPO fails, thus reducing compulsorily, Jeet's stake.

Blue Diamond's term sheet talks about one simple instrument- viz. Preference shares, while Aquarius's term sheet talks about a more complex issue of CCPS, equity and warrants.

Blue Diamond does not stipulate brand transfer while Aquarius wants immediate brand transfer at no extra payment. In Blue Diamond's offer, brand transfer may fetch more money at a later stage.

Blue Diamond may be more valuable in future since it has better brand recognition internationally.

Blue Diamond may offer better scalability with access to advanced technology.

With Blue Diamond, the market in foreign countries may be tapped more easily.

Aquarius quotes the purchase price of equity shares at 20 % lower than the conversion price. This may be disadvantageous for Jeet.

**(4 Marks)**

**2.2** Aquarius may have been preferred by the Board because:

Jeet's Board may have been confident of making a successful and qualified IPO by gross proceeds to the public of at least 150 crores at the end of the fourth year. Going by substantial growth in revenue and current valuation, Jeet is in a position to even directly implement an IPO successfully in the current year or even before the fourth year. Hence, failure of IPO and consequent entry of competitors may not even be a threatening possibility in their perception.

For the present operations, they may prefer that one alien person on their Board will be better than two, as mandated by Blue Diamond.

The technological advantage envisaged in the Blue Diamond alliance may be easily acquired as a paid resource. It is not essential that the funding person provides technology for operational success. Funding person only needs to pump in funds. Technology advantage can be separately obtained.

For the near future, 44 cr Rs. would have been sufficient for Jeet without having to bother about foreign repatriation repercussions under RBI, SEBI and Income Tax Act.

The Board may view Aquarius deal as not parting much control, since Ashwath can hold on to his holdings. Therefore, even after the IPO, the brand of Jeet is not seen as different from Ashwath. He would still be practically controlling a larger entity than before. Ashwath himself is from IIT and therefore, will be confident of continuing to manage the education more than any new director in the organisation.

Blue Diamond's exit is well safe guarded – if Jeet is successful, it will opt to convert into equity. If not, it will exit after redeeming at the end of 2021 at purchase price plus dividends plus interest on delayed payments. Dividends are senior and non-cumulative and therefore more cash outlay is involved, but the amount supplied by Blue Diamond is far in excess of Aquarius to outweigh interim cash flows as a disadvantage. However, the protected exit option will be a strain on Jeet's resources after it has invested Blue Diamond's inflows into its expansion activities. This squeeze will not happen in the event of success, whereupon Blue Diamond will convert into equity. It will happen if Jeet's expansion is not as successful as anticipated and then, preference shares have to be redeemed at original price and paid with interest on delays. This might make the Board opt in favour of Aquarius.

Aquarius may have a better feel of the local market and its requirements, regulations and terms than Blue Diamond and hence preferred for better strategic alliance.

Aquarius's proposal may more aligned to the promoter's interests.

The preferred shares of investors of Proposal Blue Diamond (B) will be redeemed. Further, if the redemption is not met on time, redemption price plus extra amount has to be shelled out. Secondly, Preferred Shares can be converted at any time at the option of the holder. This shows that too much benefit is given to the investors of Proposal B which is not the case in Proposal Aquarius.

**(6 Marks)**

### **2.3 Alternative I**

**Ashwath can wait for two more years for a PE or go for an IPO now and avoid a PE itself because of the following factors:**

The financials, assuming that profits are pre-expansion as given in the question, the turn over increases from 143.70 to 425.20 crores, by about 35 % per annum, is excellent. Hence, IPO can be tried even at this stage or at any time. The exact requirement for immediate expansion is not given in the data. For this growth and granting that Jeet is beyond the start-up stage, an IPO is likely to be highly successful at any stage. Ashwath has to only decide on when to go for it. It is certainly better to go for an IPO and retain promoter's control up to 75 % as the maximum permissible prescribed level. The advantage of a private equity over an IPO in terms of compliance with SEBI regulations on fresh issue and the work involved in an IPO will be outweighed by the interference of operation by inviting the PE funders on the Board. Moreover, IPO has to happen within the next five years even in the case of PE proposal. It is better to have an IPO now itself.

Expansion through IPO could be considered immediately on his own terms, considering that NEET and other competitive exams can be handled as another business opportunity.

The basic financial position is very strong, considering the projections of PAT, PBT and an immensely great growth in turnover by about 35 % p.a. The projections may be considered fairly realistic, since the figures for 2016-17, 17-18 and 18-19 may be taken as actual or close to actuals.

The overall success rate in IIT entrance is  $11000/12,00,000 = 0.91\%$ , while Jeet has a success rate of 6 to 7.5 %, which is very high. It is bound to enjoy great goodwill and will be a huge success operationally. It can even afford to take risks in fields other than IIT, even if it decides on expansion into coaching for new areas like NEET or IAS or other worldwide exams like Olympiad or SAT. IPO therefore is bound to be successful.

The market share can be improved substantially and there is ample scope of growth within the IIT entrance field itself. Hence, there is immense growth potential in terms of volume even if the fee structure remains without upward revision. When the IPO is bound to be successful, Ashwath will be entitled to hold a maximum of 75 % of

the post issue holding. The number of holders will be diversified and he need not worry about parting with control or losing his brand. Both will not happen and he can still enjoy control over a larger entity. He can practice good corporate governance also and give more incentives to the faculty who are mainly responsible for the success of the teaching.

Video and other advanced technology may not be very expensive compared to live classes at different centres, for which the costs are particularly high for the faculty, who are the key success points in the training scenario. Ashwath can retain popular teachers who produce results by making them part of the issue and sharing control with them rather than third party investors. He can generate cash flows for operational advancement by pooling in the faculties' huge salary costs as partly cash and partly shares in his company, so that they, who would have anyway invested their huge surpluses elsewhere, invest it in Ashwath's company.

### Alternative II

Ashwath may lose face in the market if his IPO is not successful in the next two years. Valuations are likely to increase, but in the wake of competition, which is continuously growing in the market and supporting TV ads, invading households with anxious parents through internet, social media and game oriented learning, mock tests and websites, together with published success stories, which can really shift the interest of people into competitors' fold, there is also the chance that Ashwath's passive play can see the downside of revenue. Then, even PE investors may offer lesser value for the business. In this sense, it is better to take one of these offers, or even consider some more offers and quickly decide on a PE with better terms and part with some control instead of heading a waning business.

We have instances in the past where in this field, leaders such as Brilliant Tutorials and its competitors have almost been wiped out by newcomers.

The major risk factor now is that the whole show is being run by Ashwath single-handedly. If he has a health issue or for some reason, not able to operate at this speed, enthusiasm and efficiency, the whole organisation can be wiped out. There will be no PE offers nor will he be able to get out of the onset of a vicious circle of fall in revenue due to students drifting to competition. There have been the stories of many coaching academies in IIT, CA, IAS, Bank Exams, Overseas exams like GATE, TOEFL, IELTS, etc. who have had this problem. In this light, it will be better to make an IPO, induct administrative talent, encourage competent faculty and share ownership and control with the right people, so that the whole organisation enjoys a professional growth and is not threatened by one person's temporary disability.

### Alternative Answer:

	Postpone PE idea for two more years	Choose a PE now itself. Do not postpone the PE
(i)	The pre-expansion financials have a 35% annual growth in turnover. This is healthy and he may use his own profits for growth rather than going for a PE now.	Annually increasing turnover may give better valuations of PE now. If the turnover is not maintained or decreases, PEs will interpret a downward business swing and will offer lesser value later. Hence it is better to use PE now while there is an increasing trend.
(ii)	Market Share: There is untapped potential market in Hyderabad, Kolkata, Chennai, Bengaluru and other centres. Moreover, Jeet is presently training only 22000 students out of 12 lakh growing numbers.	
	Some centres can be started now, or	More centres need to be opened

	only some main centres started with existing profits and reserves. After two more years of rapid turnover growth from these centres, PE valuations are bound to be much greater. Better negotiations can be made.	immediately and Jeet should not wait for competitors to establish their presence. Own profits will not be sufficient for opening parallel and simultaneous centres. Hence PE should be taken now.
(iii)	Changing environment in tutorial education: Technological advancements like Skype, online interactions, mobile phone apps, hiring talented teachers, etc. are necessary to retain and increase the market share.	
	Some of these will not entail substantial incremental costs. These could be funded from the current profits, generate more revenue and have better PE valuation after two years.	Scaling by competitors may be seen as a great threat, requiring Jeet to also employ technology in addition to centres. PE now will give the required scale up to prevent small time competitors entering or growing to threaten Jeet's expansion efforts later.
(iv)	Ceding Managerial Control: This is inevitable for large scaling efforts, whether through IPO or PE.	
	After two years, if the turnover is kept increasing, lesser control needs to be parted with. In case of an IPO, no single entity will need to threaten Jeet. Moreover, professional management may be a healthier thing for the company in the long run. However, since Jeet is averse to shedding control now, PE may be postponed to enable him have better negotiations.	If the rate of growth falls below the high 35% p.a., PE at a later stage may involve more ceding of control. Hence it is better to take advantage now itself.

(5 Marks)

- 2.4 (C)  
 2.5 (D)  
 2.6 (A)  
 2.7 (D)  
 2.8 (C)

**ANSWERS TO CASE STUDY: 3****Multiple Choice Questions**

- 3.1 (A)  
 3.2 (A)  
 3.3 (B)  
 3.4 (C)  
 3.5 (D)

## 3.6

Detail for Entity "E"			
"Securities that are available for offer as collateral"	7.5% 2025 G Sec	Gol 91 day Treasury Bill maturing on 31 <sup>st</sup> Jan 2019	8% Corporate Bonds maturing on 8 <sup>th</sup> July, 2020
Face Value per security	100	100	100
Market value of security on 15/11/18	96.9000	98.6000	99.5000
Repo period (days)	7	7	7
Repo commencement date	16 <sup>th</sup> November 2018		
Repo interest rate	6.50%	6.50%	6.50%
Haircut			0.02
Market value of security on reversal date	96.94845	98.6493	99.5498
No of securities for a borrowing of ₹ 5 crores, round off to the next higher integer	516000	507100	502510
Compute the following per security:			
Broken period	132	0	132
Broken period interest (first leg) on 16/11/18	2.75000	0.0000	3.3000
Considerations for the first leg (K will pay E)	99.6500	98.6000	100.8100
Repo interest	0.1242	0.1229	0.1257
Consideration for the second leg (E will pay K)	99.7742	98.7229	100.9357

**Alternative Solution****7.5% 2025 G-Sec**

- (i) **Dirty Price** = Clean Price + Interest Accrued  
 $= ₹ 96.9000 + ₹ 100 \times 7.5/100 \times 132/365$   
 $= 99.6500$
- (ii) **First Leg (Start Proceed)**  
 $= \text{Nominal Value} \times (\text{Dirty Price}/100 \times 100 - \text{Haircut}/100)$   
 $= 100 \times (99.65/100 \times 100 - 0/100)$   
 $= ₹ 99.65$
- (iii) **Second Leg (Repayment of Maturity)**  
 $= \text{Start Proceed} \times (1 + \text{Repo Rate} \times \text{No. of Days}/365)$   
 $= ₹ 99.65 \times (1 + 0.065 \times 7/365)$   
 $= ₹ 99.7742$

**GOI 91 day T Bill**(i) **Dirty Price** = Clean Price + Interest Accrued

$$\text{Dirty Price} = ₹ 98.6000 + 0 = ₹ 98.6000$$

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

$$₹ 98.6000$$

(iii) **Second Leg (Repayment of Maturity)**

$$₹ 98.6000 \times (1 + 0.065 \times 7/365)$$

$$= ₹ 98.7229$$

**9% Corporate Bond maturing on 8<sup>th</sup> July, 2020**(i) **Dirty Price** = 99.5000 + 100 × 9/100 × 132/365 = ₹ 102.80(ii) **First Leg (Start Proceed)**

$$= ₹ 102.80 (100 - 2/100)$$

$$= ₹ 100.8100$$

(iii) **Second Leg (Repayment of Maturity)**

$$₹ 100.8100 \times (1 + 0.065 \times 7/365)$$

$$= ₹ 100.9357$$

**Table showing values, parties and date of Repo Transactions**

	First Leg	Second Leg	Pay	Receives	Date
7.5% 2025 G-Sec	₹ 99.6500	----	K	E	16/11/2018
	----	₹ 99.7742	E	K	23/11/2018
GOI 91 day T Bill	₹ 98.6000	----	K	E	16/11/2018
	----	₹ 98.7229	E	K	23/11/2018
9% Corporate Bond	₹ 100.8100	----	K	E	16/11/2018
	----	₹ 100.9357	E	K	23/11/2018

**(10 Marks)**

**3.7** The repo seller is the borrower of funds and the securities are accounted for by 'E' as the owner of the securities, though they are handed over to the buyer of the repo (lender of funds). As per the terms of the repo, the intervening period's coupon interest belongs to the original owner of the securities and has to be accrued by E. On the coupon date, though the other party (repo buyer) will receive the interest, it has to hand over the interest to the repo seller 'E' on the date of receipt of the coupon interest. The repo terms provide only for the repo interest during the period. The first leg of the repo has as consideration also the broken period interest up to the date of the repo from the last coupon date. The interest for the second leg is on the amount borrowed plus the broken period interest and this is the amount paid by the borrower 'E' to K. For E, values of interest on amount borrowed.

Thus, there will be no impact of the above transaction on the coupon interests on the securities on the due dates and in the intervening period of the repo/reverse repo.

If the coupon date falls in the repo period, it will be received by the buyer of securities. It is similar to the concept of cum-dividend price of share where if the coupon date falls in the repo period, it belongs to the buyer of securities.

**(5 Marks)**

**ANSWERS TO CASE STUDY: 4**

4.1 (A)

4.2 (A)

4.3 (A)

4.4 (B)

4.5 (A)

**Ans. to 4.6 (A)** The key elements of the financial markets are:

- Foreign exchange market
- Capital market
- Money market

The main functions of financial markets are enumerated as below:

- (1) To facilitate creation and allocation of credit and liquidity.
- (2) To serve as intermediaries for mobilization of savings.
- (3) To help in the process of balanced economic growth.
- (4) To provide financial convenience.
- (5) To provide information and facilitate transactions at low cost.
- (6) To cater to the various credits needs of the business organizations.

**(2 Marks)****Ans. to 4.6 (B)**

The various credit policy instruments are explained in the following paragraphs:

**(i) Cash Reserve Ratio (CRR)**

Cash reserve ratio is the amount which the commercial banks have to maintain as cash deposit with the Reserve Bank of India. RBI may increase the CRR if it thinks that there is large amount of money supply in the economy. Conversely, it will decrease the CRR if it is of the opinion that inflation is in control and the industry needs a monetary boost up.

**(ii) Statutory Liquidity Ratio (SLR)**

Statutory Liquidity Ratio is the amount which commercial banks have to keep it with itself. To encourage industries to boost up their production, SLR may be decreased to put more money in the hands of commercial banks. An increase in SLR is used as an inflation control measure to control price rise.

**(iii) Liquidity Adjustment Facility (LAF)**

Under this facility, the commercial banks can borrow from RBI through the discount window against the collateral of securities like commercial bills, treasury bills or other eligible papers. Currently, the RBI provides financial accommodation to the commercial banks through repos/reverse repos under the LAF.

**(iv) Margin Standing Facility (MSF)**

Margin Standing Facility announced by the Reserve Bank of India (RBI) in its Monetary Policy, 2011-12 refers to the facility under which scheduled commercial banks can borrow additional amount of overnight

money from the central bank over and above what is available to them through the LAF facility upto a limit at a penal rate of interest.

The minimum amount which can be assessed through MSF is ₹ 1 crore and more will be available in multiples of ₹ 1 crore. The MSF would be the last resort for banks once they exhaust all borrowing options including the liquidity adjustment facility on which the rates are lower compared to the MSF.

**(v) Market Stabilization Scheme**

Under the market stabilization scheme, the Government of India borrows from the RBI and issues treasury bills/dated securities for absorbing excess liquidity from the market arising from large capital inflows.

**(vi) Open Market Operation**

It is basically a tactic employed by the RBI to control the liquidity in the economic system. When the RBI feels there is excess liquidity in the market, it resorts to sale of securities thereby reducing excess rupee flowing in the Indian economy. Similarly, when there is tight liquidity situation in the economy, the RBI will buy securities from the market, thereby releasing money (rupee) into the system.

**(1 Mark for each correct point = Max. 2 Marks)**

**Ans. to 4.6(C)**

WPI reflects the change in average prices for bulk sale of commodities at the first stage of transaction while CPI reflects the average change in prices at retail level paid by the consumer.

The prices used for compilation of WPI are collected at ex-factory level for manufactured products, at examine level for mineral products and mandi level for agricultural products. In contrast, retail prices applicable to consumers and collected from various markets are used to compile CPI.

The reasons for the divergence between the two indices can also be partly attributed to the difference in the weight of food group in the two baskets. CPI Food group has a weight of 39.1 per cent as compared to the combined weight of 24.4 per cent (Food articles and Manufactured Food products) in WPI basket.

The CPI basket consists of services like housing, education, medical care, recreation etc. which are not part of WPI basket. A significant proportion of WPI item basket represents manufacturing inputs and intermediate goods like minerals, basic metals, machinery etc. whose prices are influenced by global factors but these are not directly consumed by the households and are not part of the CPI item basket.

Thus even significant price movements in items included in WPI basket need not necessarily translate into movements in CPI in the short run. The rise or fall in prices at wholesale level spill over to the retail level after a lag.

Similarly, the movement in prices of non-tradable items included in the CPI basket widens the gap between WPI and CPI movements. The relative price trends of tradable vis a vis non-tradable is an important explanatory factor for divergence in the two indices in the short term.

**(3 Marks)**

**Ans. to 4.7**

It seems that Arjun is not right in his approach when he reasoned that RBI should replicate Fed in terms of its approach. The response of Lakshman to Mr. Derek should be that Federal Reserve (Fed) in the USA's policies is primarily driven by growth and employment figures, at the expense of inflation. On the other hand, we have the RBI, whose policies are primarily driven by inflation, at the expense of growth. So which approach is better depends upon the situation of the economy.

In the USA and European Union, where rate of interest is very low encourages the industry to borrow at cheaper cost and contributes towards economic development and growth. However, in India, the aim of RBI is to keep the rate of interest high to discourage the industry to borrow large amount of money and consequently to contain inflation.

**(3 Marks)**

**Ans. to 4.8**

Yes, I agree with Arjun's view. The Indian markets have been plagued by the 'speculator' and 'fly-by-night' operators. The Chairman of the now defunct NSEL (National Spot Exchange Limited) had to be arrested for having entered into futures markets without adequate documentation – many commodities that were traded didn't have any underlying to them. SEBI has passed tough strictures on fresh forward contracts in the commodity markets in Feb 2016, and it has derecognized OTCEI (Over-the-counter exchange of India).

Another big problem is that the commodity markets have not been able to see the 'exponential' growth that is required for platforms to sustain it. The basic problem is of 'inclusion' – farmers that form the backbone of agri-based commodities are not able to connect to the market, even though both MCX and NCDEX have created several awareness programs towards the same.

Political ramifications have also added to the woes – price sensitive commodities like sugar have been on and off the futures platform.

**Required solution for the same**

Needless to say, the commodity markets in India have a long way to go to becoming globally competent. There is a persisting need to close the chain between farmers to markets, which is even more challenging given that the hold of intermediaries is too strong in Indian scenario. An impetus from the government is also required in order to both educate and popularize the adoption of commodity markets in India.

**Alternative Solution to 4.8**

The commodities market in India has been growing and has more products traded in the different commodities exchanges. More regulations are in place to ensure delivery in the case of deliverable contracts including regulations on warehousing. Contracts other than ready delivery contracts come under the scope of the definition of commodity derivatives and are w.e.f. 2015, being controlled and supervised by SEBI under the Commodities derivatives segment. The Finance Act 2015 has been amended to include commodity derivatives under SEBI. The FCRA has been repealed. These have been done to exactly take care of the inadequacies observed by Arjun, viz. high speculation and fly by night operators, trading without underlying lack of growth and a suitable trading platform. These aspects have been taken care of by adequate margins being prescribed in the commodities segment, more net worth demands on the brokers on the commodity exchange platform, regulations by SEBI addressing various safeguards necessary in addition to prescribing risk management norms by means of master circular, guidelines and regulations. Penalties are imposed for violation of norms, just as in the equity derivative segments.

However, the lack of connect of farmers to market cannot merely be addressed by law. Literacy programs, though in place by SEBI to create awareness of farmers can avail of is yet to take widespread effect to fully utilize the system. This is because of the basic illiteracy that prevails in the rural areas.

Political ramifications are common to all segments and not restricted to commodities, though agricultural produce is more influenced by government politics and intervention and is bound to have more political influence on the demand and supply conditions and hence the prices.

The other drawbacks of the commodity market segment is the storage, deterioration in quality when stored, lack of income like dividend in the interim period of holding, delivery costs and possible losses, gradeability, etc.

**(2 Marks)**

**Ans. to 4.9**

**Petrol** – SEBI is considering to allow futures trading in petrol. Globally, petrol is traded on Nymex and ICE exchanges.

**Zinc** – Futures trading is already going on.

**Pulses** – Currently, no trading in pulses. But trading is possible because with futures, farmers have better idea of likely future market conditions and they can lock in/hedge future prices.

**Alternative Solution to 4.9**

**Petrol** – No, price controlled and regulated and hence and not possible.

**Zinc** - Yes, possible as it meets all conditions of Durability, Homogeneity, free from control and frequent trading.

**Pulses** – Yes, possible as it meets all conditions of Durability, Homogeneity, free from control and frequent trading.

**(3 marks)**

**ANSWERS TO CASE STUDY: 5**

5.1 (C)

5.2 (C)

5.3 (C)

5.4 (A)

5.5 (C)

**Ans. to 5.6 A**

**Note to MD of Innovate Ltd.**

**The advantages of investing in mutual funds.**

- (a) Professional Management: The funds are managed by skilled and professionally experienced managers with a back up of a Research team.
- (b) Diversification: Mutual Funds offer diversification in portfolio which reduces the risk.
- (c) Convenient Administration: There are no administrative risks of share transfer, as many of the Mutual Funds offer services in a demat form which save investor's time and delay.
- (d) Higher Returns: Over a medium to long-term investment, investors always get higher returns in Mutual Funds as compared to other avenues of investment.
- (f) Liquidity: In all the open ended funds, liquidity is provided by direct sales / repurchase by the Mutual Fund and in case of close ended funds, the liquidity is provided by listing the units on the Stock Exchange.

- (g) Transparency: The SEBI Regulations now compel all the Mutual Funds to disclose their portfolios on a half-yearly basis.
- (h) Other Benefits: Mutual Funds provide regular withdrawal and systematic investment plans according to the need of the investors. The investors can also switch from one scheme to another without any load.
- (k) Flexibility: There are a lot of features in a regular mutual fund scheme, which imparts flexibility to the scheme. An investor can opt for Systematic Investment Plan (SIP), Systematic Withdrawal Plan etc. to plan his cash flow requirements as per his convenience. The wide range of schemes being launched in India by different mutual funds also provides an added flexibility to the investor to plan his portfolio accordingly.

### Alternate Solution to 5.6 A

#### Advantages of investing in a mutual fund:

Innovate Ltd is not in the business of finance and is said to have a lean team. Hence directly supervising and reacting based on market triggers is not feasible for Innovate. Hence, it could decide its strategy and preference- in which sector it should invest and the expected returns, safety of capital, period of investment, etc. and then invest in the appropriate mutual fund.

It can choose to replicate a certain index, or to invest in a certain sector, or prefer to withdraw, or not to watch the market for a brief while by investing in an appropriate mutual fund. The funds are now rationally classified and it means the same thing across investors. It can choose a fund, and within it, a scheme that matches its investment objective.

Mutual funds have a variety of schemes catering to investment objectives of safety, liquidity, stability, constant income, growth, etc., with SEBI having a close watch with its special regulations. Moreover, the diversity of ownership in a fund makes it watched over by many interested parties that the risk of the fund is also mostly minimised by diversification.

All this comes for a small fee, for which also the ceiling is prescribed. Hence mutual funds have more advantages than individual investments.

**(2 Marks)**

### 5.6 B

#### I would advise MD following factors:

- (8) Past Performance – The Net Asset Value is the yardstick for evaluating a Mutual Fund. The higher the NAV, the better it is. Performance is based on the growth of NAV during the referral period after taking into consideration Dividend paid.  

$$\text{Growth} = (\text{NAV1} - \text{NAV0}) + \text{D1} / \text{NAV0}.$$
- (2) Timing – The timing when the mutual fund is raising money from the market is vital. In a bullish market, investment in mutual fund falls significantly in value whereas in a bearish market, it is the other way round where it registers growth. The turns in the market need to be observed.
- (3) Size of Fund – Managing a small sized fund and managing a large sized fund is not the same as it is not dependent on the product of numbers. Purchase through large sized fund may by itself push prices up while sale may push prices down, as large funds get squeezed both ways. So it is better to remain with medium sized funds.
- (4) Age of Fund – Longevity of the fund in business needs to be determined and its performance in rising, falling and steady markets have to be checked. Pedigree does not always matter as also success strategies in foreign markets.
- (5) Largest Holding – It is important to note where the largest holdings in mutual fund have been invested.

- (6) Fund Manager – One should have an idea of the person handling the fund management. A person of repute gives confidence to the investors.
- (7) Expense Ratio – SEBI has laid down the upper ceiling for Expense Ratio. A lower Expense Ratio will give a higher return which is better for an investor.
- (8) PE Ratio – The ratio indicates the weighted average PE Ratio of the stocks that constitute the fund portfolio with weights being given to the market value of holdings. It helps to identify the risk levels in which the mutual fund operates.

#### **Alternate solution to 5.6 B**

#### **Factors to select the right mutual fund:**

- Short and Long term tenors
- Safety of capital
- Diversification of risk by the fund's investment
- Composition of the investments of the fund – whether they replicate a safe index or a risky mixture with fluctuating NAVs
- Fund managers, their competence and experience
- Investment objectives of funds- whether they are aligned to the company's objectives
- The CAGR and riskometer parameters.
- Variability of the returns, the betas of the portfolios.
- Switchover facilities
- Average yields compared to the benchmark yields.

#### **Short term special parameters:**

- Lock in period
- Open ended schemes or exchange traded funds to provide for liquidity
- Entry values of NAV- If these are high, yield is bound to be low. Hence point of entry into the scheme
- Holding period yields for the short term envisaged
- Dividend pay outs
- Long Term parameters:
- Growth funds,
- Increases in NAVs substantially
- Other investors of the funds
- Fund managers, AMC
- Fluctuation levels in NAV
- Capital protection

**(3 Marks)**

#### **Ans. to 5.6 C**

**A VC will fund typically in the following ways:**

1. Seed Capital: This is the preliminary source of fund provided to the startup for either acquiring fixed assets of startup like computers, machineries etc. or for leasing out premises and such other operational setups. The seed capital is usually limited, and just enough for the startup to shore up its capital assets. In the recent times, there are 'incubators' who have specialized into this type of funding purely for seed capital, and seek to exit out once other investors find value.
2. Startup funding: This funding is given usually for the purposes of executing sales orders, in terms of product development and sales, doing sales promotional activities and the like.
3. Early stage funding: This is typically the Series A funding where the VC provides the funds for setting up the entire plant / site / services line which may also include the infusion of working capital.
4. Interim funding: Once the enterprise breaks even, the immediate focus will be on having stable cash flows. In the meantime, the management may also seek additional capital to ramp up its' operations model to its full capacity. This can be done in different ways –
  - a. The management can seek a 'bridge loan' that is essentially a plank provided for stepping up to ramp up / reach the full capacity. Bridge loan, being a short term financing loan, is an ideal way for enterprises to get a temporary source of funds before it can get replaced with a larger or a longer time frame based loan.
  - b. The management can seek a 'mezzanine' financing which is typically a hybrid of debt and preferred stock finance. In some cases, the mezzanine is purely a debt form of finance. In both cases, the repayment schedule gets tailored to the enterprise's cash flows thereby exhibiting flexibility to the management.

However, the fund comes at a price – the VC gets a direct stake in the equity of the enterprise post the conversion of preferred stock, which may make some managements uncomfortable for this sort of an arrangement. There are variants of mezzanine funding with some VCs who estimate that if the enterprise has high future potential, it can forego the requirement for a collateral value altogether or at least keep it to minimal levels; whereas some VCs would like to have an asset-backed security for the debt component. The equity component also gives the VC a say in the management affairs of the enterprise, which makes this route quite attractive to them. From the borrowers' point of view, this may be the costliest form of funding as the rate of interest would be quite high, to recognize the risks getting carried in the form of uncollateralized debt. This can leave the management with a huge refinance cost; however, as stated earlier the VC would also take care of this in the tailoring of the repayment schedule.

5. Expansion funding: Once the enterprise is running full steam, and has managed to create its own space in the market in terms of brand recall value, the VC will surely be interested to provide additional funding in terms of long term finance for future growth prospects. This may also put the enterprise 'on the block' for potential buyers, especially large sized companies who regularly scout for smaller niche enterprises for adding further variety to their developed shelf of products and services.

**Mode best suitable to Innovate Ltd.**

Though Innovate Ltd. is exploring the option of Mezzazine financing, it is avoidable as innovate ltd. is not keen on passing any stake to VCs. Since it is in the expansion stage, it can consider expansion funding.

So, in order to avail short term funds, it can go for bridge loan. And, for long funds, it can approach expansion funding.

**(6 Marks)****Ans. to 5.7**

The reasons for raising funds through debt instead of shares could include:

- The stock price of the issuer is down and thus a bond issue is a better alternative.
- The firm does not wish to dilute its existing shareholders by issuing more equity.

Some of the pre-requisites could include:

- Credit rating of the debt instrument – will need a favourable credit rating
- From a regulatory and compliance perspective, listing of debt instruments could resemble an IPO process:
  - Applicability of SEBI (Issue and listing of Debt Securities) Regulations.
  - Periodical disclosure of information having bearing on performance/operation of the entity to be made to stock exchanges.
  - Half yearly financial results will need to be published
  - Additional disclosure of the following as part of the half yearly results:
    - Credit Rating
    - Asset cover available
    - Debt Equity Ratio
    - Details of payment of interest
    - Debt Service Coverage Ratio
    - Interest Service Coverage Ratio
    - Net Worth etc.
    - Annual report shall be in the form specified in the Companies Act, 2013.

The above key additional requirements would be applicable for the Company if it intends to list its debt securities. Further, it has to scale up its finance team and also put in place a proper governance mechanism if it intends to list its securities as the regulatory oversight and compliance requirements will be higher.

### **Alternative Solution 1 to 5.7**

Two possibilities are there by going through the facts of the question. If Innovate Ltd. is already listed (the possibility of which is very less, being a startup), the company can issue convertible debt instruments. For this, it has to satisfy the requirements of SEBI (ICDR), 2018 including the additional requirements to be complied with in Regulation 107(1).

However, if it is an unlisted company (the possibility of which is greater), it can go for an initial public offer of convertible debt instruments as per regulation 2(1)(k) and 2(1)(eee) of the said regulations. Moreover, certain conditions are required to be complied with as per Regulation 5 and 6. Further, general conditions as laid down in Regulation 7 are also required to be fulfilled.

Innovate Ltd. seems to be very much geared upto meet the requirements as mentioned above as it has grown exponentially in recent past, it has huge cash balance in Indian Bank Account. Moreover, it already has 600 employees; it operates from 3 locations in India and has sales offices abroad.

Since, the company's major sources of revenues are from abroad, it has to additionally comply with Foreign Exchange Management Act, 1999 as well as its various rules and regulations.

**Alternate Solution 2 to 5.7**

Innovate Ltd. can issue debentures on a private placement basis, which under section 67 of the Companies Act requires that not exceeding fifty members are eligible to subscribe to the issue. Debentures may be secured or unsecured. Debentures must be redeemed (or compulsorily convertible) before 10 years. If not they will be treated as deposits and will come under the category of deposits and will have to comply with regulations of SEBI and RBI. (Rule 2, sub rule 1, clause c, of Companies Acceptance of Deposit Rules, 2014). These debentures on private placement basis cannot be listed by Innovate Ltd on the stock exchange, since in that case, SEBI (Issue of Debt Securities Regulations) will apply. Under these regulations, for being eligible to list debentures on the exchange, there should be a track record of profits in the preceding three years. Since Innovate Ltd broke even only last year, it does not satisfy the eligibility criterion to be governed by the said regulation. For this reason, it cannot also offer debentures to the public, whereupon it will have to take a compulsory listing and thus not eligible for public issue of debentures. Moreover, once it comes under the purview of the above regulation, it has to appoint debenture trustees and create a capital redemption reserve into which amounts have to be transferred each year from the distributable profits. Having broken even only last year, it may not be able to create the reserve next year.

It is not known whether Innovate is an already listed company, or whether it is an SME. If it comes under the purview of an SME, then the general regulations will not apply and SME regulations will apply. If it is an SME, it has special facilities under the RBI's special scheme to get loans from banks, SIDBI and other specified undertakings, both secured and unsecured within a minimum time frame.

Being a technology start up, it can get foreign direct investment under the open route without having to go through the government route. It can aim to do this since its customers are outside India. FDI should be from a limited number of investors.

Though Innovate Ltd is described as a start-up, it does not qualify for the benefits of funding under the Start-up India scheme, since the scheme is applicable only to private companies and Innovate Ltd is a public company.

Angel Funds registered under SEBI cannot fund Innovate Ltd since Angel Funds can fund only registered start-ups under the start-up India scheme.

Alternative Investment Funds governed by the SEBI regulations are eligible to invest in debt securities of unlisted companies, but this is only after they have invested two thirds in equity securities. Only then can one third be invested in debt securities. Innovate Ltd. is not interested in issuing equity. Hence this is also ruled out.

Venture capital funding arises when the start-up is almost ready to sell its products, but venture capitalists will look for equity shares to be issued. Innovate Ltd is against the issue of equity shares. Venture Capitalists who may take preference shares will be interested in converting it to equity if it is successful and are not likely to subscribe to non-convertible preference shares.

A registered start up can use External Commercial Borrowings under RBI's regulation. These have to be in the form of loans or convertible or non-convertible preference shares.

Not being eligible to be a registered start up, this is also not open for the company.

Debentures issued under private placement basis, that are compulsorily convertible after ten years into equity may be the most viable option, since debenture redemption reserve need not be created. In ten years' time, profits are likely to be adequate, considering the niche market Innovate Ltd. is in.

The company seems to be cash rich, trying to invest elsewhere. It should do so in a manner that guarantees enough liquidity to pay the interests on debentures or loans on time. Lock in period of the investments and gestation period for income generation should be very important parameters.

**(4 Marks)**