MOCK TEST PAPER 1

FINAL (NEW) COURSE: GROUP II

PAPER 6B: FINANCIAL SERVICES AND CAPITAL MARKETS

SOLUTIONS

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

Answer to Case Study Number One

(A) (i) The mutual fund discussed in the Case Study is a debt oriented scheme. The reason is that it's investments include Listed Debentures and Bonds and Government securities.

(ii) Although not specifically mentioned in the Case Study, it seems that the scheme is open ended scheme because of following reasons:

- The number of units issued and redeemed during the year has been given in the Case Study.
- The high amount of redemption (about 25% of units outstanding at the beginning of the year) indicates that the scheme is an open ended one.
- No fixed maturity period has been given.
- Lots of changes are happening in the current scheme.

(iii) Only close ended schemes are required to be listed. Since, the present mutual fund scheme is an open ended scheme; it cannot be listed and traded in the stock exchange.

Alternative Answer

No, the scheme is not of the ETF (exchange traded fund) category since there is no margin with the Clearing Corporation of India Ltd. (CCIL).

(iv) Yes, plans are permitted as lateral shift receivable and lateral shift payable is given in the Case Study itself, an indication that switching between plans is permitted in this mutual fund product.

(v) Only liquid fund schemes need to hold substantial amounts as deposits with scheduled banks. This is not a liquid fund. It is a Bond Fund. It needs liquidity to the extent of repurchase of units, being open ended. This is available in the current account balances, probably on an estimated basis, depending on the usual redemption demands by investors. Value of units pending allotment should be deposited in a scheduled commercial bank.

Alternative Answer

One of the reasons that there is a nil balance in deposit with scheduled banks is that there are many payable items in the liability side of the balance sheet which is an indication that the fund has no cash in the scheduled banks.

(vi) Yes, fund has performed well during this year as surplus transferred from revenue account and increase in reserves is an indication that the mutual fund scheme has performed well during this year.

(vii) Average purchase price

$$= \frac{100000}{1+0.0876\,x\,\frac{85}{365}} = \frac{100000}{1.0204} = 98000$$

Alternative Answer

Yield = (FV – Price)/Price x 365/85

8.76% = $\frac{(100000-\text{Price})}{\text{Price}} x \frac{365}{85}$

Price = $\frac{429412}{4.381712} = 98000.9640$

Alternatively, if 360 days assumed in a year, then average purchase price

= $\frac{100000}{1+0.0876\,x\,\frac{85}{360}}$ = $\frac{100000}{1.0207} = 97972$

(B) **(i)** **(D)**

(ii) **(D)**

(iii) **(D)**

(iv) **(C)**

(v) **(A)**

Answer to Case Study Number Two

(A) **(i)** Recognized stock exchange is a stock exchange which operate under the rules, regulations and guidelines approved by the government. As per section 2(j) of the Securities Contract Regulation Act, 1956, "stock exchange" means any body of individuals, whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities.

Further, no stock exchange is permitted to function as such to trade in the securities of a publicly held company without being recognized.

Alternative Answer

A stock exchange is a trading platform for securities of different kinds. It has member brokers who facilitate the trade between buyers and sellers. The legal entity of a stock exchange could, prior to the SEBI Act, be a Body of Individuals or a Company. After the SEBI Act came into force, this entity should have been corporatized or demutualized. In order to protect investors from fraudulent activities, the Central Government has appointed SEBI, The Securities and Exchange Board of India as the regulatory authority. SEBI, by virtue of the SEBI Act has the power to recognize stock exchanges upon their fulfilling certain requirements imposed by it. The main requirements are that the legal entity should be a company in which the public are interested to at least the extent of 51% and following certain disciplines regarding membership of brokers, trade and procedures to be complied with, in addition to having members appointed by SEBI on the company's Board. Subject to these formalities stated under section 4 of the Securities Contract Regulations Act (SCRA), the Central Government, through SEBI grants recognition to a stock exchange. If subsequent to the registration, any requirement is not complied with, the Central Government can derecognize the stock exchange under section 5 of the SCRA.

The recognition can be permanent as in the case of BSE, NSE or valid upto a certain period.

However, there are OTC exchange platforms (Over the Counter) platforms for trade of unlisted securities informally. Since, there is no governance of this; there is counterparty risk in abundance. The OTCEI was de-recognized by SEBI due to irregularities.

(ii) In case the promoter is an individual, his holding cannot be counted for the limit applicable for a retail individual investor. The reason is that in Regulation 14(1) of the SEBI (Issue of Capital and Disclosure Requirements), Regulations, 2018, it has been clearly mentioned that minimum promoters' contribution shall be 20% of the post issue capital. And, in regulation 32(1)(a), it has been categorically mentioned that in the net offer to public category, not less than thirty five per cent shall be allocated to retail individual investors. Further, in regulation 32(4), in the net offer to public category, in an issue made other than through the book building process, minimum fifty per cent shall be allocated to retail individual investors.

From the above discussion, it seems to be clear that promoter's holding cannot be counted towards the limit applicable for a retail individual investor.

Alternative Answer

Even if the promoter is an individual, his holding cannot be counted under "retail individual investor" since the definition of a retail individual investor or shareholder under Regulation 2(vv) and (ww) define him as one who applies for or bids for a value not more than Rs. 2 lacs. Hence, the promoter's holding cannot be reckoned under the retail individual investor or shareholder.

(iii) The ASBA (Application Supported by Blocked Amount) has been made mandatory by SEBI not only for book built issue but to also any public issue of equity shares. Under this arrangement, the investor has to submit an application to the Self-certified Syndicate Bank (SCSB) with whom the bank account to be used for the application money is maintained. By virtue of this ASBA facility, the amount payable on application is merely blocked by the SCSB and released to the company only on allotment, thereby obviating the necessity for a refund on non-allotment and also enabling the investor to have his liquidity for immediate other use of his funds.

Alternative Answer

It has specifically given in regulation 45(2) of the said regulations that the issuer and merchant bankers shall ensure that specified securities are allotted and/or application moneys are refunded within fifteen days from the date of closure of the issue.

From the above, it can be said that X will be able to get the allotment or refund, as the case may be before the Company B Ltd.'s open offer.

However, if he still have any doubts or fears in his mind, he can proportionately invest his surplus money of Rs. 5,00,000. For example, in company A Ltd., he can invest 50% or 75% of Rs. 5,00,000. And, in case, anything unfavourable happens, he can invest rest of the amount in company B. This way he can overcome the problem to a certain extent.

(iv) The numbers are leading market indices. A market index normally is computed by computing market capitalization of select number of shares chosen to represent market movement. The S & P BSE Sensex was set at 100 on April 1st, 1979 and consists of the market cap weighted index of 30 chosen stocks, whereas the Nifty 50 consists of 50 companies' stocks listed on the National Stock exchange. The base period is November 3rd 1995 and the base value has been set at 1000. Since the base values are very different, we have a big gap in the updated values on every trade day. However, daily % increases/decreases of the indices are almost the same, indicating the general market movement. Apart from these, there are sectoral indices to track specific sectors.

(v)

Investment Objective	Instrument	Instrument
Growth and appreciation in value	Equity Shares	Equity based Mutual Fund
Regular Income	Debentures	Bonds
Liquidity	Liquid Funds	Money Market Mutual Funds

Alternative Answer

Investment Objective	Instrument	Instrument
Growth and appreciation in value	Equity Shares, mutual funds in equity	Real Estate, gold

Regular Income	Deposits, debt instruments	Debt funds, Real estate
Liquidity	Bank Deposits	Mutual funds – short term, liquid funds

(B) **(i)** **(A)**

(ii) **(B)**

(iii) **(C)**

(iv) **(C)**

(v) **(B)**

Answer to Case Study Number Three

(A) **(i)** An option of looking at external equity without diluting control do not seem feasible because such practices are followed by listed companies after their initial public offerings in which the shares are offered for sale by private shareholders, such as directors or other insiders (like venture capitalists) looking to diversify their holdings. So, in such situations, a company may not benefit at all. And, KVE is an unlisted company.

However, it can be argued that the company can increase its external equity without diluting control by issuing Differential Voting Rights i.e. issuing shares which are having more dividend rights but very less voting rights. Or, it can issue convertible warrants for the time being to avoid diluting its voting rights.

(ii) As regards raising of money through debt, two broad courses are available to the company. Money can be raised through issue of debentures or by way of bank finances. Bonds or debentures are long term debt securities and carry an interest rate dependent on market forces. Movements in the interest rates in a volatile market, viz., and interest rate risks are possibilities in this area, because debentures are long term investments, commitments made are unchangeable once the period of instrument namely 7 to 9 years are through. Interest on bonds is tax-deductible and the feature presents a possibility of adoption in cases of companies having current liquidity, the long term effects are to be considered. Bank financing is an option on medium term plan and often tried when the company is anticipating to make profits in the future to service the loan obligations and to pay of the liability, the prospects are bright for the adoption of bank financing as a distinct possibility.

It has been stated that the ownership/management is reluctant to resort to borrowings except for occasional working capital requirements now not resorting to any loans. This is a bad financial management solution since businesses are expected to maximize their profits by adequate resources – equity and debt. Debt financing done at reasonable level is a good financing option and reasonable from the equity holder's point of view since debt servicing is tax deductible and enhances EPS. A good EPS also encourages good market price for the shares and leads to maximization of an equity holder's shares. It leads to overall financial and economic development.

In the present case, the equity base of the company is Rs. 2010 lakhs against which apparently no debt obligations exist. Even if the non-current liabilities sum at Rs. 583 lakhs were taken as bank loans or outside debts, the debt equity ratio is only around 0.25: 1. The permissible ratio in the financial circles being 2 :1, the unit upto which long and short term debt finances could of the order of Rs. 4020 lakhs. There is a gap of around Rs. 3400 lakhs which the company can comfortably leverage and the present proposal of additional revenue requirements of Rs. 2000 lakhs could be fully met by such borrowings. Even at Rs. 2000 lakhs of fresh bank advances, the debt equity ratio of the company could be just around 1 :1 which is a very healthy sign, with a 30% tax shield available for interest expense, the effective rate gets reduced to 7% wealth. This could be brought to the notice of the ownership/ management to change their perceptions.

In the circumstances, we could advice the company to go in for debt capital from banks and financial institutions.

Alternative Answer

It has been given in the Case Study itself that debt equity ratio applicable to the business in which the company is engaged is 2:1. Therefore, the company has to reconsider its debt equity ratio. KVA's equity is almost 4 times that of its debt. Increasing the debt does bring some advantages which are explained as follows:

(a) The earning per share (EPS) of the company will get increased.

(b) The company will be able to save more tax.

However, some disadvantages are also there by increasing the debt:

(a) Default risk i.e. if the company fails to make interest payment in time.

(b) Too much interest payment may eat into the profits of the company.

Therefore, from the above discussion, it can be suggested to the company that debt should be increased slowly and gradually so that interest burden can be manageable by the company and sound profitability position can also be maintained by the company. This way, KVA can substantially reduce its default risk also.

(iii) Additional Equity to be Issued

	40% Dilution	50% Dilution	60% Dilution
Existing No. of Shares (A)	50 lakhs	50 lakhs	50 lakhs
Existing Ownership (B)	100%	100%	100%
Diluted Ownership (C)	60%	50%	40%
Revised Total No. of Shares (D)	$\frac{50 \text{ lakh}}{0.60}$ = 83.33 lakh	$\frac{50 \text{ lakh}}{0.50}$ = 100 lakh	$\frac{50 \text{ lakh}}{0.40}$ = 125 lakh
Additional Equity Shares (A) – (D)	33.33 lakh	50 lakh	75 lakh

(iv) Estimated Price Per KVE Share

P/E Multiples of Industry

Name of Company	**Market Price per share**		**Earnings per share**	**P/E Multiple**		
	High	**Low**		**High**	**Low**	**Average**
Agri-Imp Ltd.	45	41	4.5	10	9	9.5
Implements (I) Ltd.	51	42	3.2	16	13	14.5
Beta Products Ltd.	110	80	6.00	18	13	15.5
			4.57*			**13.17***

Calculation of Market Price per Share

= Average P/E Multiple x Average Earnings per share

= 13.17 x 4.57 = 60.19

* Average P/E Multiple = 9.5 + 14.5 + 15.5/3 = 13.17

* Average Earnings per share = 4.5 + 3.2 + 6/3 = 4.57

(v) Executive summary of the recommendations to be put up to the Board of Directors of the company

(a) The company can increase its external equity without diluting control by issuing Differential Voting Rights i.e. issuing shares which are having more dividend rights but very less voting rights. Or, it can issue convertible warrants for the time being time to avoid diluting its voting rights. However, control may get diluted when warrants will be converted into equity shares at a later stage.

(b) A better option before a company if it wants to issue capital for expansion purpose is to raise capital either through the primary market or a private placement.

(i) Primary Market. If the company wants equity dilution in the primary market, it shall issue new equity shares to the public. A company can raise large amount of capital through this route. However, it also leads to comparatively higher issue expenses and compliance costs.

(iii) Private Placement. Further, if the company wants to save issue expenses and future compliance costs, it can consider a private placement of shares. When an issuer makes an issue of shares or convertible securities to a select group of persons not more than 50 but can extend upto 200, and which is neither a rights issue nor a public issue, it is called a private placement. So, Private Placement makes sense if the company wants limited capital for its expansion purpose. Otherwise raising capital through primary market seems to be a better idea.

(c) A company may also consider increasing its debt-equity ratio slowly and gradually as it will help the company to save tax and increase it's earning per share.

(d) If the company issues additional equity shares, it can quote issue price of the additional equity at Rs. 60.19.

Alternative Answer

- Krishi Vikas is in a growing curve.
- The project calling for an investment of Rs. 2000 lakhs is plainly stable.
- The additional revenues expected to be earned will strengthen the company.
- The requirements of funds for the next project are for Rs. 2000 crores.
- Can be raised through additional equity or borrowings.
- Borrowings can be either through bonds or bank finances.
- Interest rate can be competitive and is tax deductible.
- Leveraging on debt equity ratio will still present the company in sound health resulting in higher EPS and maximization of share value.
- The proposal will add considerably to capital base by way of substantial share premium.
- The prospects for the future are good and PE can be offered an exit 4/5 years down the line by way of a buy-out or as IPO.
- The management recommends the PE proposal.

(B)

1. (c)

2. (b)

3. (c)

4. (d)

5. **(b)**

Answer to Case Study Number Four

(A) 1 **(c)**

2 **(b)**

3 **(c)**

4 **(d)**

5. **(a)**

(B) (1) Report to the Director, CRISIL

(a) Assessment of Risks

The various types of risks of HRS Ltd. and their assessments have been briefly discussed in the following paragraphs:

(i) **Business Risk –**The Company is banking its hopes on clients to be generated by a single app provider. Though the provider of the app has been successful in the small car segment, it is not certain whether it will succeed with truck operators since most of them may be illiterate and unable to use smart phones necessary for the App.

(ii) **Strategic Risk** – This is high in this business development. Many drivers delegate their duties to someone else. If they are going to be tracked by GPS, they may not switch on their phones and take refuge under the pretext of non-connectivity. They may have to skip rests and may be given stringent targets of travel, which they may try to achieve by driving without sleeping which may lead to accidents.

(iii) **Solvency, Liquidity and Default Risk –** Although the Debt Equity ratio of HRS Ltd. is in accordance with industry line i.e. 5 :1, it is still quite high. The company has further proposed an issue of Rs. 500 crore which will be utilized for redeeming an earlier issue of debentures. This may lead to default risk if the company fails to pay the interest and the principal amount.

Further, for the year ended 31st March, 2018, current liabilities of the company are more than its current assets. It means that the company has got a tight liquidity position. This is a red flag which the company has to manage wisely.

(iv) **Operating Risk**- The Company has installed GPS System for providing information to delivery destination and origin of loading for better inventory management and production process. This will reduce the company's operating risk to a large extent.

Moreover, the company has made an arrangement for a backup under which if the existing app provider fails, the large number of vehicles financed would be managed by another app provider. Thus, the company has managed it's operating risk well.

(v) **Legal Risk**–It has been mentioned in the case study itself that there have been no negative pointers under any law on the company or its directors or management. So, it seems that the company has managed its legal risk well.

(vi) **Compliance Risk–**The Company has fulfilled all the conditions under the various regulations for the proposed debenture issue which is an indication that the company has managed it's compliance risk well.

Moreover, with Traffic Rules by drivers, GST rules for transit of goods by the owners of goods in transit and the truck owners (borrowers), HRS's control on the location of assets hypothecated to it and traceability of borrowers and consequent disclosure compliances by HRS itself are at stake if things do not operate smoothly.

(vii) **Reputation Risk –**The Company has also managed it's reputation risk well as there have been no adverse publicity in any media about any internal mismanagement or controversy.

(2) Note on appropriate rating and consideration of CAMEL criteria

The most appropriate rating would be Moderate Safety*.

Consideration of CAMEL criteria

(i) **Capital** – For the year ended 31st March, 2018, the Company's reserves and surplus is Rs. 120610 lakhs as compared to its share capital which is Rs. 3270 lakh. The company has a proposed borrowing i.e. debenture issue of Rs. 500 crore. However, company's debt-equity ratio of 5:1 is already high inspite of the fact it is in accordance with industry standards. And, the proposed debenture may affect its solvency position.

(ii) **Assets** – The proposed issue will not lead to any major asset expansion as most of the amount raised will be utilized for redemption of old debt. And, company's fixed assets comprising of property, plant and equipment showed a sudden decline from the year 2017 to 2018. However, intangible assets have increased. Further, company's non-current investments are manifesting a steep increase due to upsurge in company financing of vehicles.

Moreover, the company is accepting deposits from the public and hence is an NBFC PD and is also a systematically important NBFC with asset base crossing Rs. 500 crore. It has to comply with the RBI's capital adequacy ratios and other similar to banking requirements of returns and compliances, thereby monitored on par with a bank.

(iii) **Management** – The company is professionally managed and has had qualified persons of repute heading the respective operations and the middle level managers are also carefully chosen to be able to manage the country wide operations and to take decisions quickly and efficiently.

(iv) **Earnings –** Company's revenue has been steadily increasing which is giving an indication that it will be able to service its debts properly. However, it also depends upon the company's liquidity position.

(v) **Liquidity –** The Company's liquidity position is tight. This is manifested in company's declining cash position especially its current assets which is reducing steeply in comparison to its current liabilities.

Thus, I would recommend an investment grade rating to this security as Moderate Safety and put the company on watch for any possible revision since the new line of financing can either be very successful or a total failure.

(3) Potential benefits of the proposed new unit of business are as follows:

(i) Under the new proposal, vehicles financed will be hypothecated to HRS by the entrepreneur who is the principal borrower, fully guaranteed by the app provider. So, if the principle borrower fails to make the payment to HRS Ltd., the app provider will step in and make good the loss.

(ii) The used vehicle will also be handed over to another entrepreneur attached to him. Thus, only the repossessed vehicles will form the used vehicle financing segment.

(iii) Agreements are proposed to be drafted with conditions for repossession within one month of default and redeployment of such vehicles for earning money, by continuing to be hired.

(iv) The Company has installed GPS System for providing information to delivery destination and origin of loading for better inventory management and production process.

(v) The company has made an arrangement for a backup under which if the existing app provider fails, the large number of vehicles financed would be managed by another app provider.

Answer to Case Study Number Five

(1) **(d)**

(2) **(d)**

(3) **(b)**

(4) **(c)**

(5) **(b)**

(6) APV is a tool to look at justification of a project based on a cut-off rate that is not influenced by debt and tax shield; it also helps to identify and isolate the impact of debt financing.

Working

(i) Cost of Equity using CAPM

Re = Rf + β (Rm – Rf)

= 9% + 1.5% + (14% - 9%)

= 16.5%

APV = Base NPV + PV of Tax Benefit of Debt

(ii) Calculation of Base NPV

Cash Inflow from the project

	Year 1	Year 2	Year 3	Year 4	Year 5
Profit before Depreciation	180	350	400	500	450
Less: Depreciation	38	38	38	38	38
	142	312	362	462	412
Less: Tax	50	109	127	162	144
	92	203	235	300	268
Add: Depreciation	38	38	38	38	38
Cash Flow	130	241	273	338	306
PV @ 16.5%	0.858	0.737	0.632	0.543	0.466
PV	112	178	173	184	143

Total PV of Inflows = 790

PV of Cash Outflows = 500

Base NPV = 290

3. Present Value of Impact of Financing

	Year 1	Year 2	Year 3	Year 4	Year 5
Interest:					
LT Debt	8	14	12	9	6
Short Term Debt	7	27	27	27	27
	15	41	39	36	33
Tax Saving @ 35%	5.25	14.35	13.65	12.6	11.55
PV Factor @ 9%	0.917	0.842	0.772	0.708	0.650
PV	4.81	12.08	10.54	8.92	7.51

Total PV of Tax saving from debt = 43.86

Now, APV = Base NPV + PV of Tax Benefit from Debt

= 290 + 43.86 = 336.86 lakhs

Alternatively, above PV of Tax Saving can also be computed at Cost of Debt which is as follows:

$$\frac{135}{135+225} \text{ x } 0.11 + \frac{225}{135+225} \text{ x } 0.12$$

$$= \frac{135}{360} \text{ x } 0.11 + \frac{225}{360} \text{ x } 0.12$$

= 0.04125 + 0.075 = 0.11625 or say 11.63%

	Year 1	Year 2	Year 3	Year 4	Year 5
Interest:					
LT Debt	8	14	12	9	6
Short Term Debt	7	27	27	27	27
	15	41	39	36	33
Tax Saving @ 35%	5.25	14.35	13.65	12.6	11.55
PV Factor @ 11.63%	0.896	0.802	0.719	0.644	0.577
PV	4.70	11.51	9.81	8.11	6.66

Total PV of Tax saving from debt = 40.79

Thus, APV = 290 + 40.79 = Rs. 330.79 lakhs.

As the APV of the expansion project of BON BON Limited is positive, the project can be accepted.

Alternative Answer

What is APV?

If in an exercise of project viability analysis, a scheme of financing is assumed and the cash flows are then calculated, it would imply that the investment decision and the financing decision are integrated. Such a course of analysis could lead to justification of an otherwise risky project because of choice of finance.

CFO'S CALCULATION OF ADJUSTED PRESENT VALUE (APV)

Base NPV

$R_f + (R_m – Rf)\ \beta$

That is, 9% + (14% -9%) 1.5 = 16.5%

NPV Calculation at cut-off 16.5%

(136 x 0.858) +255 x 0.737) + (287 x 0.632) + (351 x 0.543) + (627 x 0.466)

Less 500

= 468.782

Impact of Financing

Present value of tax shield

= (44 x0.858) + (95 x0.737) + (113 x 0.632) + (149 x 0.543) + (133 x 0.466)

= 322.068

Adjusted Present Value (APV)

= Base APV + PV of impact of Financing

= 468.782 + 322.068

= 790.850

Conclusion:

Based on the initial working and the assumed plan of financing the project is quite acceptable.

(7) Viability of the proposed debt option:

The present LT debt/equity ratio of the company is

250/ (50 +200), that is, 1.

It will be good to maintain this ratio.

With the proposed financing option the ratio will change as:

(250 + 135) / (50 + 200 + 140) = 0.99

Hence the proposed LT debt option is quite viable and need not be changed.

(8) **Suggested Modifications:**

(i) Suggestion to seek downward revision of interest rate on Long Term debt based on the Company's credit rating.

(Revised workings are given after changing the LT interest rate downward by ½ per cent)

(ii) Suggestion to seek post-shipment credit from banks for export receivables at a concession of 1%.

(Workings of interest on bank borrowings are being revised accordingly).

(iii) Each year's surplus cash availability to be assessed and bank finance requirements to be revised. This requires movement of working capital numbers and may be re worked at a later time.

Revised Interest Workings

Amount in Rs. Lakhs

	Year 1	Year 2	Year 3	Year 4	Year 5
LT Debt:					
Amount outstanding start of the year	-	135.00	121.50	94.50	67.50
Additions during the year	135.00	-	-	-	-
Repayment during the year	-	13.50	27.00	27.00	27.00
Amount outstanding end of the year	135.00	121.50	94.50	67.50	40.50
Intst at 10.5% on average outstanding	7.09	13.47	11.34	8.51	5.67
Rounded off	7.00	13.50	11.50	8.50	5.50
WC borrowings:					
Export finance (90 days export sales)	90	130	220	250	225
Balance (clean OD)	22.50	95	5	-	-
Interest on export finance @ 11%	4.45*	14.30	24.50	27.50	24.75
(* for ½ year)					
Interest on clean OD @ 12%	1.35%	11.40	0.60	-	-
Total	5.80	25.70	24.80	27.50	24.75