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Further, in the Elective Papers which are Case Study based, the solutions have been worked out on the basis of certain assumptions/views derived from the facts given in the question or language used in the question. It may be possible to work out the solution to the case studies in a different manner based on the assumptions made or views taken.

PAPER 6B: FINANCIAL SERVICES AND CAPITAL MARKETS - ELECTIVE PAPER

*The question paper comprises **five** case study questions. The candidates are required to answer any **four** case study questions out of **five**.*

While answering the multiple choice question, candidates are required to indicate the alphabet of their choice in capital letters.

In case, any candidate answers extra question(s)/ sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question (s) answered shall be ignored.

Case Study No. - 1

ABC Ltd. is a conglomerate which operates in multiple sectors such as manufacturing, chemicals, real estate, retail & EPC. It is listed on NSE as well as BSE. The COVID-19 pandemic has resulted in significant uncertainty in its flagship business. It is further worsened due to elevated debt levels, although free cash flow in pre-COVID-19 situation was sufficient to allay any concerns on the debt servicing.

Given these scenarios, the Board of Directors of ABC Ltd. in a duly constituted meeting, has announced to raise funds through Rights Issue, primarily to repay debt and strengthen the balance sheet. The details of the Rights Issue are as below:

(i) Record Date - 15th May, 2020

(ii) Ratio - 1:10

(iii) Issue opening date - 20th May, 2020

(iv) Price - 1,000 to be paid in two installments of ₹ 300 and ₹ 700 on application and in May 2021 respectively.

Category of Shareholders	% of shares held as on the record date	No. of shares (Cr)
Promoters	48%	240
FIIs	25%	125
DIIs	12%	60
Retail shareholders	10%	50
IEPF (Investor Education & Protection Fund)	2%	10
GD₹	3%	15
Total	100%	500

The current EPS is ₹50 and cum-rights price is ₹1,400. The cost of debt is 12% and effective tax rate is 20%. Risk free rate of 1 year T Bill is 6%.

15 out of 20 analysts covering ABC Ltd. have consensus price target of ₹1,800 in next 1 to 1.5 years. The remaining five have set the target price in the range of ₹1,600 to 1,750.

GDR are not listed on the permitted jurisdictions as per SEBI guidelines for issue of permissible instruments hence may have to be renounced by the current holders in the market. ABC is also considering to invest in a restaurant business. The CFO has informed the Board that such business would require less investment as negative working capital would be a permanent feature.

Multiple Choice Questions:

1.1 What is the minimum period for which a Rights Issue must remain open for subscription?

(A) 7 days

(C) 6 months

(B) 15 days

(D) 1 year

1.2 What is the minimum level of subscription for successful rights issue?

(A) 100%

(B) 75%

(C) 80%

(D) 90%

1.3 Calculate the theoretical ex-rights price for the above Rights Shares.

(A) 1363

(B) 1100

(C) 1063

(D) 700

1.4 Negative working capital in the context of a restaurant business would be

(A) good as it would release fund with the rise in the level of operation and it is natural for such business.

(B) bad as it would require investment with the rise in the level of operation.

(C) neutral as creditors would charge extra interest

(D) None of the above

1.5 *Assume that ABC Ltd.'s fully paid shares is traded at ₹ 1,390 and Right Entitlement's (RE's) closing price as on 25th May was, 400. Which one of the following is correct about pricing of RE?*

(A) *it is traded at a discount of ₹ 10*

(B) *it is traded at a premium of ₹ 10*

(C) *it is traded at a discount of ₹ 32*

(D) *it is traded at a premium of ₹ 32* ***(2 x 5 = 10 Marks)***

1.6 *The CFO of ABC Ltd. has asked you to prepare a document to be circulated to the Project Team highlighting the temporary relaxations granted by the SEBI in the context of COVID-19 pandemic along with the recent reforms and new mechanism unveiled by the SEBI for Rights Entitlements (REs). Prepare a short note with key relaxations and new mechanism for REs.* ***(2 Marks)***

1.7 *Determine number of Rights Shares to be allotted to the applicants mentioned below based on Allotment Waterfall and preferential ranking with appropriate justification.*

(a) *Mr. A holds 1500 shares as on 15th May, 2020 and has applied for 100% of his entitlement and in addition, he has applied for 100 more Rights Entitlements (REs) as 'additional shares'.*

(b) *Mr. B bought 200 Rights Entitlement from the market and has applied for the same. In addition to these REs, he has also applied for 200 more REs as 'additional shares'.*

(c) *Mr. C bought 800 shares from market on 16th May, 2020 and wants to apply for 80 Rights Entitlement.* ***(4 Marks)***

1.8 *List various options available to raise money, for a listed entity from its equity shareholders. Explain with three reasons as to why Rights Issue is one of the preferred modes of raising funds from equity shareholders.* ***(4 Marks)***

1.9 *You father owns 1000 shares of ABC Ltd. and has approached you to take your opinion on whether he should subscribe to the Rights Issue. Evaluate whether it is beneficial to subscribe to Rights Issue from the perspective of EPS, market price of rights shares and analyst's views on the price.* ***(5 Marks)***

Answer Case Stud y 1

Kindly note for answer to question 1.1 to 1.5 no calculation is required to given by the students.

1.1 B

1.2 B

1.3 A

1.4 B

1.5 C

1.6 Reforms & Relaxations by SEBI for Rights Issue

Over the last one year. SEBI has undertaken significant steps to reform the rights issue process. While SE81 made some permanent reforms ill me process. it also provided some temporary relaxations in the wake of Covid-19 pandemic for right issues that open on or before March 31, 2021.

- Average market capitalization of public shareholding reduced from ₹250 crores to ₹100 crores for a fast track rights issuance.
- Reduced the minimum subscription requirement from 90 to 75 of tile issue size,
- Listed entities raising funds up to ₹ 25 crores (erstwhile limit was ₹ 10 crores through a rights issue are now not required to fife draft offer document with SEBI.
- Timelines for completion was Significantly reduced from T+55 days to 1+31 days.
- Reduced the advance notice for the record date from 7 working days to working days.
- Relaxation in the pre-condition with respect to listing of equity shared from 3. years to 18 months,
- Issuer to submit restated financial statements If its audited financial statements are qualified and then make a right issue.

Reforms in the mechanism of Rights Entitlements

- In a major move that makes it possible for eligible investors to subscribe and trade their rights entitlement (RE) and also makes it possible for interested investors to subscribe to more shared than they are eligible for SEBI on January 22, 2020, laid down the detailed procedure of the improved rights issue process and the dematerialized Res framework.
- While the previous process of trading rights entitlement entailing physical settlement was marred with low liquidity, the decision to dematerialize the Res and permitting their trading through stock exchange framework ensure higher liquidity and determination of a fair market price for REs.
- Shareholders with small holdings, who were earlier not able to renounce Res for lack of an accessible platform, can renounce and trade their Res easily now. This reform enables all shareholders to renounce-cum-trade their entitlements and obtain a fair market price for the same.
- For shareholders who want to invest more, this also provides them with the opportunity to buy more shares from those who are willing to trade their Res in the market.

1.7 Relevant SEBI provisions from ICDR for Allotment priority in rights Issue

A. Full allotment to those eligible shareholders who have applied for their right entitlement either in full or in part and also to the renounce(s), who has/have applied for the specified securities renounced in their favour, in full or in part. as adjusted for fractional entitlement

B. Allotment to eligible shareholders who having applied for the specified securities in full to the extent of their right entitlement and have also applied for additional specified securities, shall be made as far as possible on an- equitable basis having due regard to the number of specified securities held by them on the record date, provided there is an undersubscribed portion after making allotment in (A) above.

C. Allotment to the renounces, who having applied for the specified securities renounced in their favour and also applied for additional spec led securities. provided there is an undersubscribed portion after making full allotment specified in (A) and (B) above. The. allotment of such additional specified securities may be made on a proportionate basis.

1.7 a. Mr. A shall get 150 (1500 shares held as on Record Date ie. 15th May and Rights Ration of 1:10 hence 1500/10) Rights entitlements and he has applied for 100 of it so he will be allotted 150 Rights Shares as per 'A' above .

Additional 100 shares applied shall be governed by 'B' above and hence will have 2nd priority.

1.7 b Mr. B will be allotted 200 Res which he has bought from the market as per ‘A' above, being a renouncee,

Additional 200 REs shall be allotted as per 'C' above Le. 3rd and residual priority provided 'A' and 'B' category allotment is done in full nd there is unsubscribed portion available.

1.7 c Mr. C will not get any allotment since he is not an eligible shareholder as on the record ,date and hence won't get the 1 s1 priority in 'A' category as he may have been envisaging.

He may apply for 80 REs by buying them first from the market and then apply so that he gets categorized in 'B'.

1.8 Option to raise money from equity shareholders by listed entity

Equity fund-raising mechanisms for listed entity are

a. Qualified institutional Placements (QIPs)

b. Preferential Allotment

c. Share Warrants

d. Rights Issue

e. Follow on Offer

Reasons why Rights issue is preferred

While existing shareholders may not necessarily be able to participate in other fund raising mechanisms like Qualified Institutional Placement (QIPs), Preferential Allotment and Warrants, Rights Issue is a more democratic approach to raising funds as it allows the existing shareholders the right to invest first in the company at same price at which even Promoters are participating.

- For a rights issue, there is no requirement of shareholders' meeting and an approval from the board of directors is sufficient and adequate. Therefore, the turnaround time for raising this capital is short and is much suited for the current situation unlike other forms that require shareholders' approval and may take some time to fructify. Thus the rights issue are a more efficient mechanism of raising capital.
- Additionally, for other methods of funds raising, determination of price for the issue is governed by SEBI pricing regulations. Rights issue pricing can be freely determined by the Board of the company.

  Kindly Note: If the student gives any other justifiable reasons also for Rights issue (other than what is given the Model Solutions) marks can be given

1.9 Calculation of EPS

- Current E PS - ₹ 50
- No of shares pm Rights issue - 500 crores
- Profit for the purpose of EPS - ₹25,000 crores
- No of shares issued under Rights Issue - 49 crores (IEPF's rights shares of 1 crore (10 crores shares with 1:10 ration) will be issues end cancelled and hence wont constitute under no of shares issued),
- Total no of shares post Rights Issue - 549 crores
- increase in Net Profit after repayment of Debit in next one year (without discounting and forward year EPS)

  ₹ 300* 49 crores Rights Shares = ₹14,700 crores

  ₹700* 49 crores Rights Shares = ₹34,300 crores

  Total Debt repaid= ₹ 49,000 crores

  Interest Saved: ₹ 5,880 crores (49,000*12%)

  Tax Shied lost= ₹1,176 crores (5,880*20%)

  Net increase in Profit after one year = ₹ 4,704 Crores (₹ 5,880 Crores-₹ 1,176 Crores)

  Revised net profit after one year = ₹29,704 Crores (₹ 25000 Crores+ ₹ 4,704 Crores)

- One Year Forward EPS = ₹29,704 Crores 1,549 Crores shares/₹54.11

Reasons to subscribe to Rights Issue

- The Price of Rights Share is ₹1000 as against the current market price of ₹1400 hence there is – 30% discount to current' market price which is good for current shareholders,
- Additionally, the payment of ₹1000 is split into ₹300 on application and balance ₹700 after one year, this eases the cash flow burden 011 the shareholders who may have some issues due to Covid19 pandemic and can subscribe and secure allotment without worrying about the cash flow problems, if any.
- The Rights Issue is EPS accretive as per above calculation with increase of ₹4.11 i.e. 82 upside from current EPS of ₹ 50 hence it is beneficial to do current shareholders.
- The Analyst View is also bullish with 15 out of 20 Analysts covering ABC Ltd. has consensus price target of - ₹1800 in next 1 to 1.5 years and rest 5 have target price of - ₹1600 to 1750. So there is an upside of - ₹200 to 400 from current levels hence it will be worth accumulating Rights Shares at ₹1000 and gain the additional differential of ₹ 400 offered.

Based on above analysis, it is worth subscribing to Rights Shares.

Case Study No. - 2

Reliable Footwears Ltd. has imported $ 25 million worth raw material from USA for the manufacturing of their new line of footwear. You are the Transaction Banking Head of Sunshine Bank and Reliable is one of your key clients. The CFO of Reliable has approached you to understand the best option to finance the import transaction to optimise overall cost of financing. Assume that above discussion took place on 1st October, 2019.

(i) Terms of credit- 30 days from the invoice date and the payment will be due on 1st November 2019.

(ii) The operating cycle for Reliable is 6 months.

(iii) The MCLR rates and spread for various tenor in effect are given below.

Reliable is classified as SB-5 credit rating customer as per bank's credit policies and due diligence. It has working capital facility of 500 crores from the bank.

Tenor	*Existing MCLR (%)*
Overnight	*8.05*
One month	*8.05*
Three months	*8.10*
Six months	*8.25*

One year	*8.50*
Two years	*8.80*
Three years	*9.00*

Credit Category	*Spread (%)*
SB-1	*1.50*
SB-2	*2.00*
SB-3	*2.50*
SB-4	*3.00*
SB-5	*4.00*
SB-6	*6.00*
SB-7	*7.00*

(iv) The spot USD-INR exchange rate is 68 as of the discussion date i.e. 1st October, 2019.

(v) USD LIBOR rates for various tenor are:

Period	*3 month*	*1 month*	*6 month*	*12 month*
LIBOR Rate (%)	*2.5955*	*2.4934*	*2.6691*	*2.7300*

(vi) Bank charges spread of 150 bps for SB-5 category trade credit borrower.

(vii) The letter of credit charges are 1% p.a. on the LC amount.

(viii) The prevailing forward premium on USD-INR for 12 month period is 6%.

(ix) As per RBI prevalent Trade Credit Policy, for non-capital goods, the maximum limit of Buyer's credit per transaction is $ 50 Mn and the duration can be up to 1 year or operating cycle, whichever is less. The All-in-Cost ceiling for Trade Credit is 6 months benchmark rate + 250 bps spread.

Reliable also has export business. Despite best efforts of the management it has not achieved the desired level, and so far they have not made profit due to higher marketing cost. The management is trying to increase volume in order to register profit in export business. The pre-shipment and post-shipment finance are being managed well to optimize cost. Recently, Reliable has received a purchase order and the customer is ready to give a Red Clause Letter of Credit (L/C).

Further, the CFO of Reliable wants to protect the credit risk of an investment made in BB rated bond of P Ltd. Due to sudden change in macro-economic conditions, the CFO expects that P Ltd. may default. But considering high coupon rate, the CFO does not want to dispose of the investment made in the bond of P Ltd. The CFO is considering credit default swap an instrument to achieve the objective of protection of credit risk.

Multiple Choice Questions:

2.1 Post-shipment finance is considered

(A) more risky than pre-shipment finance

(B) less risky than pre-shipment finance

(C) just as risky as pre-shipment finance

(D) risk-free borrowing instrument in export finance

2.2 Determine which of the following is not a Bank Financing Facility:

(A) Overdraft

(B) Bill discounting

(C) Packing credit

(D) Corporate bonds

2.3 Which one of the following is incorrect with respect to credit default swap?

(A) CDS is more like an option.

(B) CDS does not allow the protection buyer to move credit risk off balance sheet without actually disposing off the asset.

(C) Total Return Swap (TRS) transfers both credit and market risk but the CDS only transfers credit risk.

(D) Multiple default baskets provide protection against the default of all of the reference assets in the basket and do not terminate after the first default.

2.4 Factoring is mainly relevant for management of

(A) Inventory

(B) Accounts receivables

(C) Vendor payables

(D) Cash management

2.5 Which of the following risk is not managed by bank treasury?

(A) Credit risk

(B) Liquidity risk

(C) Market risk

(D) Sovereign risk ***(2 x 5 = 10 Marks)***

2.6 (A) Based on the information given, evaluate working capital finance in INR and buyer's credit in USO. Suggest to the CFO, which option is better and why? ***(6 Marks)***

(B) *What would be the impact on debt equity ratio if buyers credit option 1 is selected by Reliable?* ***(1 Marks)***

2.7 *The CFO has asked you to illustrate the Credit Default Swap by way of a diagram. Also, explain three parties and two types of assets that are involved in a Credit Default Swap.*

(6 Marks)

2.8 *Illustrate a transaction involving a Red clause Letter of Credit (L/C) by way of a diagram?*

(2 Marks)

Answer Case Study 2

Kindly note for answer to question 2.1 to 2.5 no calculation is required to given by the students.

2.1 B

2.2 D

2.3 B

2.4 B

2.6 D

2.6 A

The duration for Buyer's credit for non-capital goods can be maximum of operating cycle for the borrower or 1 year whichever is less. In the captioned case. since the operating cycle is 6 months! maximum duration for Buyer's credit will be 6 months.

Accordingly, the evaluation between Working Capital Financing in INR and Buyer's Credit in USD is done for the period of 6 months from the due date of payables ie. 1st November.

As per above, the interest rate has been used for 6 months period both in INR an LIBOR terms.

The calculation of total outflow in INR under Working Capital Facility

Particulars	Amount
Applicable MCLR of 6 months (%)	8.25
Spread as per Credit Category (%)	4.00
Total Interest (%)	12.25
'Transaction Amount (USD)	2,50,00,000
Spot USD INR	68.00
Forward Premium for 12 months	6
Forward premium for 1st, Nov. Payment	.34
Forward Rate for 1st Nov. Payment	68.34
Total outgo in INR to Supplier on 1st Nov	1,70,85,00,000

Interest for e months	10.48,45.625
Total outgo in INR (Principal + Interest)	1.81.31.45L625

The calculation of total outflow in INR under Buyer's Credit

Particulars	Amount
Applicable LIBOR of 6 months (%)	2.6691%
Spread (%)	1.5000%
Total Interest (%)	4.1691%
Total Interest cost (USD)	5,21,138
Principal + Interest payable after 6 months	2,55,21,138
LC Commission	1.00%
LC Cost (USD	1,25,000
LC Cost (INR)	85,00,000
Forward premium for 6 months	2.04
Forward Rate for 6 months	70.04
Total outgo in INR (Principal + Interest)	1,79,60,00,471

Note - If any student uses LIBOR of 1 or 3 months, he should appropriately mention an assumption for rollover and associated costs as well.

The total savings under Buyer's Credit shall be ₹ 1,71,45,154.

2.6 (B) The Buyer's Credit shall increase the Debt Equity Ration since it is classified as Debt (facility availed from bank and on which the interest is payable)

2.7 There are two parts in the Question Paper first part deals with illustrate the Credit Default Swap by way of diagram and second part deals with explanation to three parties and two types of assets involved in Credit Default Swap. The allocation of marks to first part shall be 2. and to second part shall be 4 marks.

First Part:- Kindly Note 2 Marks even if students do not give diagram but give proper explanations kindly give full marks. Even if the student gives diagram plus suitable explanation of CDS 2 marks can be given.

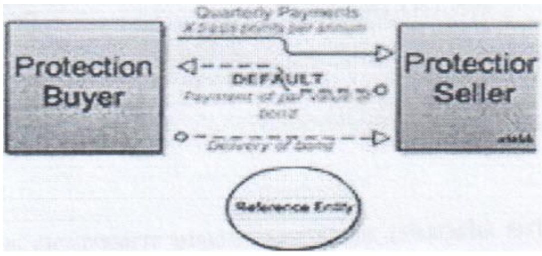
Credit Default Swap It IS a combination of following 3 words:

Credit: Loan given

Default: Non payment

Swap : Exchange of Liability or Risk

Accordingly, CDS can be defined as an insurance (not in stricter sense) against the risk of default on a debt which may be debentures, bonds etc.



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.

Main Features of CDS

The main features of CDS are as follows:

1. CDS is a non-standardized private contract between the buyer and seller. Therefore, it is covered in the category of Forward Contracts.
2. They are normally not traded on any exchange and hence remains free from the regulations of Governing Body.
3. The International Swap and Derivative Association (ISAD) publishes the guidelines and genera! rules used normally to carry out CDS contracts.
4. CDS can be purchased from third party to protect itself from default of borrowers.
5. Similarly, an individual investor who Es buying bonds from a company can purchase CDS to protect his investment from insolvency of that company, Thus, this increases the level of confidence of investor in Bonds purchased.
6. The cost or premium of CDS has a positive relationship with risk attached with loans. Therefore. higher the risk attached to Bonds or loans, higher will be premium or cost of CDS.
7. If an investor buys a CDS without being exposed to credit risk of the underlying bond issuer, it is called "naked CDS".

Uses of Credit Default Swap

Following are the main purposes for which CDS can be used.

(a) **Hedging -** Main purpose of using CDS is to neutralize or reduce a risk to which CDS is exposed to, Thus, by buying CDS. risk can be passed on to CDS seller or writer.

(b) **Arbitrage -** It involves buying a CDS and entering into an asset swap. For example, a fixed coupon payment of a bond is swapped against a floating interest stream.

(c) **Speculation -** CDS can also be used to make profit by exploiting price changes. For example,' a CDS writer assumed risk of default. will gain from contract If credit risk does not materialize during the tenure of contract or if compensation received exceeds potential payout.

Part B

Kindly Note:-1 mark can be given to the student who gives lists out two types of assets involved i.e. Bonds and cash even if we does not explain the settlement mechanism.

Three Parties to CDS

In a CDS at least three parties are involved which are as follows:

i. **The initial borrowers-** It is also called a 'reference entity'. i.e. the entities Which are owing a loan or bond obligations.

ii. **Buyer**·- It is also called 'investor' ie. the buyer of protection. The buyer will make regular payment to the seller for the- protection from default or credit event of reference entity.

iii. **Seller-** It is also called 'writer' of the CDs and makes payment to buyer in the event of credit event of reference entity. It receives a regular payoff from the buyer of CDS,

Settlement of CDS/Asset involved in Credit Default Swap

Broadly, following are two main ways of settlement of CDS:

(i) Physical Settlement - This is the traditional method of settlement. It involves the delivery of Bonds or debts of the reference entity by the buyer to the seller and seller pays the buyer the par value.

(ii) Cash Settlement Under this arrangement seller pays the buyer the difference between par value and the market price of a debt (whatever may be the market value) of the reference entity. To make Cash settlement even more transparent, the credit event auction was developed. Credit event auction set a price for all market participants that choose to cash settlement

2.8 Red Clause Letter of Credit

A red clause letter of credit incorporates a clause, traditionally written in red, which authorizes the bank acting as the negotiating or paying bank to pay the beneficiary in advance of shipment.

This enables the purchase and accumulation of goods from several different suppliers, and the arrangement of shipment under the letter of credit terms.

Such advances will be deducted from the amount due to be paid when the documents called for are presented under the letter of credit.

It the beneficiary fails to ship the goods or cannot do so before the expiry of the Letter of credit the issuing bank is bound to reimburse the negotiating or paying bank, recovering its payment from the applicant.

Variations of such credits may also require that any advances be secured by temporary warehouse receipts until shipment is affected.

Beneficiaries of red clause letters of credit are invariably brokers/agents of buyers in a particular field.

the issuing banks make the advance payment under red clause letters of credit against presentation of advance payment guarantees issued by the bankers of the exporters. guaranteeing a refund in the event of failure to ship under the credit.

___________Instance Type and Transmission ------- Original received from SWIFT

Priority/Delivery : Normal

Message Output Reference: 1225121018XXXXXXXXX5657939061 'Correspondent Input Reference; 1225 121016XXXXXXXXX1178375172

"------------ Message Header -----------

Swift OUTPUT FIN 700 Issue of a Documentary Credit

Sender: ASIATRISXXX

Receiver: PCBCCNBJXXX

------ Message Text ---------

27: Sequence of Total

40A: Form of Documentary Credit

IRREVOCABLE

20: Documentary Credit Number

ASIAIMOOOQ4050

31C: Date of Issue

130722

40E Applicable Rules

UCP LATEST VERSION

31D, Date and Place of Expiry

131230- TURKEY

50: Applicant

ASIA BANK OF TURKEY TAS

BUYUK HAN MAH. ISMAIL HAKKI BEY
CAD, NO:20 34500
SISLI, ISTANBUUTURKEY
59: Beneficiary - Name & Address
NINGBO PLASTIC MACHINERY CO., LTD,
PLS SEE FIELD 47A ITEM 7 FOR ADDRESS DETAILS
32B: Currency Code, Amount
Currency: USD (US DOLLAR)
Amount; #327.000.JO#
39B: Maximum Credit Amount
NOT EXCEEDING
41A: Available WITH ...By ... - BIC
ASIATRISXXX
ASIA BANK OF TURKEY TAS BUYUK HAN MAH. ISMAIL HAKKI BEY CAD. NO:20 34500
SISI, ISTANBUUTURKEY
BY MIXED PYMT
43P: Partial Shipments
NOT AllOWED
43T: Transhipment
ALLOWED
44E: Port of loading/Airport of Departure
ANY CHINESE PORT
44F. Port of Discharge/Airport of Destination
HAYDARPASA PORT ISTANBUL
44C: Latest Date of Shipment 131209
45A: Description of Goods &/or Services
NEW PLASTIC CUP MAKING LINE QTY:1 SET U/P: USD 321.000 FOR TOTAL
AMOUNT: USO 327.000,00 AS PER BENEFICIARY'S PROFORMA INVOICE RE
NO: NB130522 00:04.072013
INCOTERMS 2010: CIF HAYDARPASA ISTANBUL TURKEY

Case Study No. - 3

Genius is the education technology start-up on a mission to democratise the access to quality education of school going students in India by building an online education platform.

India has - 250 mn school going students in K12 segment in India. There are 1.5 mn schools in India out of which government runs - 70% of these schools while the remaining are run by private bodies. 85% of the schools are in rural area as against only 15% in urban cities. 10% of these K12 segment uses some or the other form of technology products/solutions which will eventually grow to 120 mn by 2023 end as per report of a renowned consulting agency. Overall spend on school education by all stakeholders is $ 40 bn out of which in-school and out-of school expenditure ratio is 40 : 60 which will become equal by 2023 after growing by 100%. Average per student spend on technology i.e. out-of school expenditure is $ 200 p.a. as of now and expected to grow to $ 250 p.a, by 2023. Average per school spend on technology products and solutions is $ 4000 and $ 16000 per school p.a. in Government and private school respectively, and is expected to grow by 100% and 50% respectively by 2023;

Genius has built the interactive and animated content in 30 for entire K12 segment across 22 state boards, CBSE, ICSE & 15 languages as well. It has strong 250 people team to build and curate the content which is aligned to the school syllabus. They have gamified the education learning process with peer-to• peer contest, leader-board on Pan India basis and prizes for weekly contest winners. This approach has resulted in higher engagement on the Genius App of 80 minutes per day with 1 mn students using the app on a daily basis. They have almost 20 mn question bank with personalized algorithm to provide individual feedback and learning path suitable for each student.

Their business model relies on viral marketing based on word of mouth, social media and other electronic medium. Typical conversion rate is 2% for every registered users to paid users. The average price of Genius package is $ 150 p.a. Cost of conversion for each user is average $ 90 p.a. It expects to grow at 50% p.a. until 2023. Their monthly expenses are$ 75,000 out of which$ 60,000 is for content creation and direct expenses related to operations. It will increase @ 50% p.a. balance$ 15,000 are towards corporate overheads and will increase by40%p.a.

Genius also attempts to sell combined package for multiple years in one go i.e. 8th to 10th standard content is sold as a package. This is driven by the zero cost lending by empanelled NBFCs. Such package sales constitute 40% of total revenue and have average duration of 3 years. Genius has experienced default rates of 10% p.a. in this segment. Genius accounts for entire package revenue in the year of sales.

The COVID-19 pandemic has accelerated adoption of technology products and solutions by schools, coaching classes, teachers, parents and students. The schools mainly were not convinced with the idea of content on such technology based platforms but now have been forced to adopt and adapt quickly. Genius has identified this opportunity and has been working on a platform named 'School Management' as a one-stop solution for all needs to run a school online. It aims to target schools with this platform and compete with existing large players in this *space. They will build a freemium model here as well and pricing is yet not finalized but will be based on feedback from schools.*

There are few start-ups operating in the similar space and have received massive funding. The top 3 players alone have garnered $ 800 mn of funding out of total $ 1.2 bn funding received till date across 100 + start-ups in technology space. In the last 3 years, -500 start-ups in technology based education space shut down due to extreme competition and lack of funding. The top 3 players have 20 mn registered users out of 25 mn users. The highest funded player has Annual Run Rate (ARR) of $ 100 Mn, yet to break even and has secured last funding at 2 bn valuation. Investors across segment are very bullish about the sector and have been pumping money in the entire value chain.

Genius has raised a seed round I year back of $ 1 mn at pre-money valuation of $ 10 mn from two renowned angel investors. Both of them belong to school education sector and are well networked in the fraternity.

Genius is looking to raise $ 10 mn in pre-series A round now with pre-money valuation of $ 100 mn. Genius plans to spend $ 10 mn on development & marketing of School Management Platform expansion (40%), growth (30%) and balance for 30% on improvement in the content and tech platform.

Founder of Genius, Gaurav is an IIT alumnus with 10 years of experience at global investment bank. Another co-founder, Mr. Shashank Rane is a veteran in education technology space and has worked with well known Education Software Company for 15 years.

Multiple Choice Questions:

3.1 Please find one method to raise funds which is inconsistent out of the options given below:

(A) Private Equity

(B) Venture Capital

(C) IPO

(D) Management Buyout

3.2 What is the hurdle rate?

(A) Maximum rate which a PE should achieve

(B) Cost of Capital

(C) Minimum rate· which PE should achieve for LPs before sharing of profits

(D) Return on investment

3.3 Start-up has ₹10,000 of share capital of 1000 shares. VC wants to invest ₹4,000 with 400 shares. What is the post-money valuation?

(A) 1400

(B) 10000

(C) 14000

(D) 400

3.4 Early stage firm will most likely to receive funding from:

(A) VC Firm

(B) PE Firm

(C) Sovereign Wealth Fund

(D) Bank

3.5 The right by which majority of shareholders shall bind the minority shareholders in the event of sale or transfer of shares is known as

(A) Oppressive

(B) Anti-dilution

(C) Drag along

(D) Domination ***(2 x 5 = 10 Marks)***

3.6 You are an analyst at Unicorn Venture Partners who is evaluating an opportunity to invest in Genius's pre-series A round. Your firm typically make investment upto $ 1 mn as an initial investment and expects a minimum 10 x returns on exit with 2-3 years of investment holding period. Prepare an investment Memo for the meeting with partners which would cover all aspects given below:

(A) Problem, Solution and Market sizing ***(4 Marks)***

(B) Financial projections & key operational metrics ***(4 Marks)***

(C) Valuation and Exit opportunity ***(3 Marks)***

(D) Recommendation including key risks ***(4 Marks)***

Case Study No.3

Kindly note for answer to question 3.1 to 3.5 no calculation is required to given by the students.

3.1 C

3.2 C

3.3 C

3.4 A

3.5 C

3.6 (A) (i) The access to education is abysmally poor in India given 70% of them are run by Government & 85% being in rural area, The Teacher-Student Ratio & quality of available teachers is also very low as compared to any other countries. Despite Significant append on the education by government, single delivery platform accessible to all with quality content is not available across India. The traveling to school is another challenge with many rural students forced to travel 5 km daily to attend school.

The One to Many Platform solves the problem W.r.t paucity of quality teachers & immovability of them due to geographical constraints.

The virtual learning platform also solves the immediate issues due to Covid 19 pandemic Le. social distancing & lockdown.

(ii) Market Sizing

Particulars	**2020**	**2023**
Total Education Spent	$ 40 Bn	$ 80Bn (100% growth)
Total In-School Spend (A)	$ 16Bn ($40 bn* 40%)	$ 40 Bn (50% Share)
Total Out-of School Spend (B)	$ 24 Bn($40*60%)	$ 40 Bn (50% Share)
No of Students Using Edtech	25 Mn (250 Mn*10%)	120 Mn
Avg. of Students Spend per Student (Out-of-School)	$ 200	$ 250
Total market size of Edtech Out-of-School Spend (C)	$ 5Bn	$ 30Bn
Market Size % (C/B)	**20.83%**	**75%**
Total No of Schools	1.5Mn	1.5Mn (assuming no growth in the absence of information
Government Run Schools	1.05 Mn (70% of Total)	1.05 Mn
Privately Run Schools	0.45 Mn (30% of total)	0.45 Mn
Avg. Spend by Government Schools In-School	$ 4000	$ 8000 (100%)
Avg. Spend by Private School In-School	$ 16000	$ 24000 (50% growth)
Total Market Size of Spend by School on In-School (D)	11.4 Bn	$ 19.2 Bn
Market Size %(D/A)	**71.25%**	**48%**

It can be seen from above analysis that spend on edtech products under 'Out-of-school Segment' is going to grow from 21% to 75%, with total market size of $ 30 Bn. Although 'Out-of-school Segment' degrows from 72% share to 48%, total market size for edtech products in school is significantly large of - $ 16 bn. The growth in number of school shall be one factor which is missing in the given information and to that extent there will be an upside for this segment since the avg, spend per school is expected to grow by 50% to 100%.

(B) (i) Operational Metrics

1 Mn students who are using the app have been spending 80 minutes per day on the app. This is significant time spent on the app given typically for after-school-tutoring, students spend - 1 hour per subject/lecture.

They have been able to develop vast content - interactive. animated and 3D - for entire K12 segment across 22 state boards, CBSE, ICSE & 15 languages as well. They have almost 20 mn question bank with personalized algorithm to provide individual feedback and learning path suitable for each student

(ii) Projected Financial Statement

The projected financial statement of Genius until 2023 is as below:

Particulars	2020	2021	2022	2023
Registered Users	1000000	1500000	2250000	3375000
Paid Users (2%)	20000	30000	45000	67500
Single Year Users (60%)	12000	180000	27,000	40500
Multi Year Users i.e. 3 yrs. (40%)	8000	12000	18000	27000
Package Price p.a. per user	150	150	150	150
Cost of Acquisition p.a. per user	90	90	90	90
Revenue – Single Year	1800000	2700000	4050000	6075000
Revenue – Multi Year – Year 1	1200000	180000	2700000	4050000
Revenue – Multi Year – Year 2	-	120000	1800000	2700000
Revenue – Multi Year – Year 3	-	-	1200000	1800000
Total Revenue	300000	5700000	9750000	14625000
Total Cost of acquisition	1800000	2700000	4050000	6075000
Direct cost p.a. (60,000*12) with 50% increase p.a.	720000	720000	720000	720000

10% Default for Package Revenue	120000	300000	570000	855000
EBIDTA	360000	1620000	3510000	5265000
Corporate Overhead (15,000*12) with 40% increase p.a.	180000	252000	352800	493920
Net Profit	180000	1368000	3157200	4771080

The financial statement is as per current business status and does not include the In-School Segment revenue which will start flowing based on the platform developed by Genius.

The policy of accounting for Package Sales revenue in the year of sales in incorrect since the service has not been provided for next 2 years and the subscription can be cancelled any time before enrollment into next year. Hence the same has been recognized over the period of 3 years.

The projections show healthy cash flow and profitability cover next 3 years.

(C) (i) Valuation

The similar players are valued at 20x of their ARR ($100 Mo ARR and $ 2 Bn valuation). Considering similar multiples, ARR of $ 3 Mn for 2020 given a valuation of $ 60 Mo. Genius is raising the round with $ 100 Mn of valuation i.e. 33x of 2020 revenue which would be justifiable given the early stage of the company and growth acceleration of 50% on yearly basis.

It is also profitable to start with and plans to remain on same path until 2023.

(ii) Exit Opportunity

The exit opportunity for VC Investor can be better exit multiple by 2023 with new products adding revenue line.

Also It may be one of the prime target for 211<1 or Std player to leapfrog in the competitive market.

(D) (i) Risks

The sector is highly competitive and although market size is very large for multiple players to co-exist. it may be difficult to scale up eventually due to network effect of 2- players who are heavily funded.

Additionally. the covid19 pandemic led forced adoption needs to be distinguished from adoption post-covid 19 situation. The expected growth across value chain may not materialize if things are restored at faster rate.

(ii) Recommendation

Genius is run by passionate founders and team with well networked domain experts as Investors. It has excellent operating metrics for existing product and its new product will augment the revenue pool in next 2-3 years.

The Product-market fit is proven and the adoption is also accelerated across value chain. The huge market size is attractive to build new solutions and products for better business.

The only concern is the multiples to be achieved on exit - whether it fits the hurdle rate in 3 years or not. With 20x revenue multiple, 2023 exit valuation comes to $ 292 Mn (giving 3x returns to VC investors which is way below their expected 1O0x returns.

Hence it may be passed at this juncture given returns expectations may not be met for a VC investor.

Alternatively, students may justify the exit valuation with new revenue stream coupled with additional focus on growth for current segment with s 10 mn in kitty. They could achieve S 3 Mn revenue with $ 1 Mn funding and hence the projections are very conservative from their side and they could achieve upwards of $ 25-30 Mo for current segment from new funding giving valuation of $ 500-600 Mn. It will further be augmented with 'n-School revenue kicking in from this veal onwards which may command 40-50x maniple. Combination of these two may help to reach VC Investment returns. Hence it may be recommended for additional diligence on financials & fund applications and accordingly investment may be recommended.

Case Study No. - 4

You are a Financial Advisor. Mr. Suyash, 25 years old, is your client and he has invested ₹ 10 lakhs across multiple equity stocks in the anticipation of making quick returns. In the recent month, there has been wide spread panic in the market leading to 10% correction in the NIFTY. With this correction, Suyash is staring at a loss of ₹ 3 lakhs.

He has found out about Mutual Fund Systematic Investment Plan (SIP) from his friends and has approached you for your opinion.

Multiple Choice Questions:

4.1 In case of Index Fund Scheme of ETF, total expense ratio shall not exceed of the daily net assets.

(A) 1%

(B) 1.25%

(C) 1.5%

(D) 0.5%

4.2 *Real estate asset as per real estate mutual fund scheme includes*

(A) *Vacant land*

(B) *Agriculture land*

(C) *Deserted property*

(D) *Identified immovable property with no encumbrances*

4.3 *Sharpe ratio measures and Treynor ratio measures*

(A) *Total risk, Systematic risk*

(B) *Unsystematic risk, Credit risk*

(C) *Total risk, Unsystematic risk*

(D) *Liquidity risk, Credit risk*

4.4 *A mutual fund in India is constituted in the form of --*

(A) *A public trust formed under the Principles of Mutuality*

(B) *An investment company according to special amendment to the Banking Regulation Act, 1949.*

(C) *A public trust created under the Indian Trusts Act, 1882*

(D) *A public company incorporated under the Companies Act, 1956*

4.5 *Mahesh invested ₹ 4 lakhs on 20th Feb, 2018 in an equity mutual fund scheme at NAV of 28.25 per unit. The scheme declared dividend of ₹ 5 per unit, the record date being 31st September, 2018. The prevailing NA V at the end of October 2019 of the scheme is 22.35 per unit. If he sells all the units of the scheme today, what would be the total gains?*

(A) *Loss of ₹12,744*

(B) *Gain of ₹ 25,785*

(C) *Gain of ₹ 70,796*

(D) *Loss of ₹ 83,540* **(2x 5 = 10 Marks)**

4.6 *Explain the benefits of investing in Mutual funds. Additionally, explain the concept of SIP and its benefits.* **(4 Marks)**

4.7 *Mr. Suyash has prepared following data of 4 open ended mutual on internet research. Review the following information funds based and correct wherever required.*

Sr. No.	Parameters	Emerging Equity Fund	Nifty ETF	Liquid Fund	Gilt Fund
1	Benchmarks	Nifty 50	Nifty Mid Cap 100	Nifty Gilt fund	Nifty Liquid Index

2	*Ideal Investment Horizon*	*5 years and above*	*3 years and above*	*1 year and above*	*1-15 days*
3	*Investment Philosophy*	*Tracks Nifty 50 Stocks*	*Invests in Mid Cap Stocks*	*Invests on G-Sec*	*Invests in Money Market Instruments*
4	*Risk Category*	*Low Risk*	*Moderately High Risk*	*Moderate Risk*	*High Risk*

(4 Marks)

4.8 Suyash has shortlisted funds listed below for SIP and has shared additional information on the same.

Parameters	*Equity Blue Chip Fund*	*Equity Infra Fund*
Expense ratio	*.26%*	*1.5%*
Annualized Alpha (5 year)	*6.40%*	*5%*
Returns (1 year)	*12%*	*20%*
Benchmark Returns	*5%*	*13%*
Standard Deviation	*12%*	*27%*
Beta	*0.5*	*0.8*
Portfolio Turnover Ratio (PTR)	*53%*	*30%*
Fund Manager Experience in MF Industry	*20 years*	*5 years*
Fund Inception	*10 years*	*6 years*

Risk free returns are 6%. Please advise him based on the evaluation of the performances of these funds with help of parameters given above:

(1) Fund performance against a Benchmark

(2) Fund history

(3) Fund Expense Ratio

(4) Risk Adjusted Returns

(5) Average Maturity and Duration

(6) Fud's Alpha and Beta

(7) Portfolio Turnover Ratio (PTR) ***(7 Marks)***

Answer Case Study 4

Kindly note for answer to question 4,1 to 4.5 no calculation is required to given by the students.

4.1 A

4.2 D

4.3 A

4.4 C

4.6 A

4.6 Benefits of Mutual Funds:

1. **Professional Management** - Mutual funds are managed by skilled and experienced market professionals backed by research teams. Hence the investment is done with meticulous fundamental and technical research.
2. **Diversification & economies of scale -** Mutual funds diversify the risk by not putting entire available corpus in one single stock. The investment philosophy itself provides cushion for any risk hedging. The pooled money from multiple small investors provides requisite scale and access to otherwise unavailable options for investment such as real estate.
3. **Higher Returns -** Over medium-long term horizon, mutual fund investors typically earn higher returns than other investment avenues.
4. **Low cost of Management -** As per SEBI mandate, the total costs to be borne by AMe cannot exceed 2.5% of AUM.
5. **Liquidity -** In all open-ended funds, the liquidity is provided by direct sales/repurchase by mutual fund itself and in case of erose ended funds, the liquidity is provided by listing the units on exchange.
6. **Transparency -** As per SEBI regulations, MFs need to disclose their portfolios on half-yearly basis. NAVs for open ended funds are calculated on daily basis and published through AMFI.
7. **Highly regulated** - SEBI has an excellent investor protection mechanism for all mutual funds and its investors.
8. **Flexibility -** The wide range of schemes offered by MFs and inter-scheme changes offer great flexibility to investors to structure his portfolio depending on the investment goals.

Systematic Investment Plan (SIP)-

SIP allows you to invest regularly a fixed sum with as Low as ₹500 at fixed intervals (Weekly. monthly or quarterly) instead of doing a - one-time investment in any mutual fund scheme/s.

The equity market is volatile in nature. With SI P investment, you would be able to achieve rupee cost averaging - buying a greater number of units during a slump and a smaller number of units in a blooming market

SIP helps in compounding the investment returns. The basic principle of Compound interest implies that small amounts invested over a long period of time would result in a larger return compared to a one-time investment.

SIP investment would make you more disciplined in matters of managing your finances. With the option of automated payments, it means you don't have to remember every month.

With One-click withdrawal SIP can act as an emergency fund for possible contingencies and gives you peace of mind.

4.7

Sr. No.	Parameters	Emerging Equity Pund	Nifty ETF	Liquid Fund	Gilt Fund
1	Benchmarks	Nifty Mid Cap 100	Nifty 50	Nifty Liquid Index	Nifty Gilt Funds
2	Ideal Investment Horizon	5 years and above	3 years and above	1-15 days	1 year and
3	Investment Philosophy	Invests in Mid Cap stocks	Tracks Nifty 50 stocks	Invests In Money Market Instruments	Invests on G-Sec
4	Risk Category	High Risk	Moderately High Risk	Low Risk	Moderate Risk

Kindly Note:- In respect of each tunas, if at least 3 points are correct 0.5 marks can be given and in case 1 points correct no marks to be given1 since the marks allocation is based funds.

4.8 The key rations are as under for both funds

Parameters	Equity Blue Chip Fund	Equity Infra Fund
Expected Returns	5.50%	11.60%
Alpha	6.50%	8.40%
Sharpe Ratio	0.50%	0.52
Treynor Ratio	0.12	0.18

Expected Returns: Risk Free Returns + Beta (Benchmark Return - Risk Free Return)

Alpha = Expected Returns - Funds Returns

Sharpe Ratio= (Fund Returns - Risk Free Returns)1 Standard Deviation

Treynor Ration: (Fund Returns - Risk Free Returns)/ Beta

1. Compare Fund Performance against a Benchmark

It is important to use a fair and representative benchmark which reflects the investment philosophy and structure of the fund. Is should always be a like-to-like comparison else wrong yardstick will yield misleading decisions.

The Jensen's Alpha measures the fund's performance over the actual market portfolio with same beta.

In case of Blue-Chip fund in performance in terms of Alpha over benchmark is 6.5%- and 5 year annualized Alpha is also 6.40%.

The Infra Fund has done better in this context on annualized basis with 8.40% but has lagged in 5 year returns with only 5%.

2. Compare Fund history

Along with 5 years annualized Alpha, the fund manager experience and fund existence are also important, Here on all these three counts, Blue Chip performs better as compared to Infra Fund.

3. Compare Fund Expense Ratio

Expense Ratio is the annual fee charged by the fund for managing your money. As per SEBI guidelines, they cannot charge more than 2.5 of the fund's average asset' under management (AUM). Expense ratios are charged out of the fund returns.so, the higher the expense ratio, the lower would be your take-home returns.

The Infra Fund is charging very competitive expense ratio indicating the nimble operations, more direct plan options and better returns for investors.

Although no conclusion can be drawn on a standalone basis based on expense ratio, indicating the nimble operations, more direct plan options and better returns for Investors.

4. Compare Risk-Adjusted Returns

With Sharpe Ratio. we can measure total risk and with Treynor for Ration, only systematic risk is measured,

While comparing the Sharpe Ratio for both funds, even though Infra Fund has 0.02 extra return, it isn't worth for assuming an extra 15 standard deviation risk.

In Treynor Ratio. Infra fond does weir as compared to Slue Chip Fund,

Now Blue-Chip Fund is well diversified fund while Infra Fund is sector specific fund.

Hence for Infra Fund the Sharpe Ration should be better and for Blue-chip Treynor ration should be apt In the absence of relevant benchmark to compare, we compare the Sharpe and Treynor ratios for these funds with each other.

5. Compare Average Maturity and Duration

These are essentially used to evaluate debt funds hence not relevant in this context. Average maturity relates to the period after which the securities held by a debt fund will mature. The longer the maturity, the higher is its sensitivity to interest rate movements, And higher are chances of a fall in the fund NAV due to a rise in interest rates.

Duration means how long does each underlying security of the debt fund take to reach a break-even point Le. point of no profit no toss. The shorter the duration the quicker will it return your original investment In such a scenario, you will be able to accumulate money to reach your goals.

While investing in debt funds, the average maturity and duration of the fund shou match your investment horizon.

6. Compare fund's Alpha & Beta

While Alpha measures the number of extra returns generated by the fund in excess of the benchmark returns. beta measures the riskiness of a fund. Moreover, it shows whether the fund loses/gains more/less than the benchmark. In the given two funds, being sector specific fund, Infra Fund has higher beta. As compared to Blue Chip Fund but still will yield lower gains/losses than benchmark since it is 0,8 (less than 1)

7. Compare Portfolio Turnover Ratio (PTR)

The portfolio turnover ratio suggests how often the fund manager buys/sells securities in the portfolio. In case of equity funds, it shows the level of trading taking place in the fund. Frequent trading going on in a portfolio ultimately increases the expenses and is reflected as a higher expense ratio. It might reduce your take-home returns from the fund. Thus, PTR is an important criterion for fund selection.

This exactly is reflected in the Blue-Chip Fund with 53 PTR, expense ratio is higher @ 2.26% as against Infra Fund with 1.5% for 30% PTR.

Recommendation:

On overall basis, given the aggressive nature of Suyash and his relatively young age. he May start will, SIP in Infra Fund because of higher Alpha, better Sharpe Ratio and Treynor Ratio; lower expense ratio and lower PTR

Case Study No. - 5

You are a Group Treasurer of Tesla Star Ltd., a leading infrastructure player in India with interests in EPC, roads, airports and ports construction projects. The group is in expansion mode and details of next project are as below:

1. *Capital Assets - ₹ 1,000 crores*

The suggested scheme of financing by the project consultant appointed by the Board committee is as below:

1. *Long term debt@ 12% fixed rate - ~ 750 crores*
2. *Rights issue of~ 250 crores*
3. *Short term working capital demand loan facility @ 10% fixed rate - ₹ 150 crores*

The expected duration of the project is 5 years. This financing scheme is recommended by the consultant and you need to validate the same and propose alternative structure based on additional information given below:

As per the lending bank, the equity contribution stipulation for such projects is minimum 10% of the capital cost. The debt covenants have stipulated the cap of 2 : 1 on debt equity ratio which is similar to industry standards.

Projects financials are as below (₹ in crores)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	1,100	1,250	1,400	1,500	1,600
Other income	150	200	250	300	400
Total income	1,250	1,450	1,650	1,800	2,000
Materials	700	750	775	800	850
Labour	100	150	200	250	300
Other expenses	50	75	90	100	150
Total expenses	850	975	1,065	1,150	1,300

PBDIT Depreciation	400 150	475 150	585 150	650 150	700 150
PBIT	250	325	435	500	550
Interest on long term debt Interest on short term debt	45 8	81 13	63 8	45 3	27 -
PBT	197	231	364	452	523
TAX @ 35% (approx.)	69	81	128	158	183
PAT	128	150	237	294	340

10% sales p.a. are going to be denominated in USO.

Long Term Debt	Year 1	Year 2	Year 3	Year 4	Year 5
Opening	-	750	600	450	300

Additions	*750*	*-*	*-*	*-*	*-*
*Repayment**	*-*	*150*	*150*	*150*	*150*
Closing	*750*	*600*	*450*	*300*	*150*
Interest @ 12% on average outstanding	*45*	*81*	*63*	*45*	*27*

Short Term Debt	*Year 1*	*Year 2*	*Year 3*	*Year 4*	*Year 5*
Opening	*-*	*150*	*100*	*50*	*-*
Additions	*150*	*-*	*-*	*-*	*-*
*Repayment**	*-*	*50*	*50*	*50*	*-*
Closing	*150*	*100*	*50*	*-*	*-*
Interest @ 10% on average outstanding (approx.)	*8*	*13*	*8*	*3*	*-*

Above repayments are indicative and may vary as per alternative chosen by the student.

The risk-free return on 365 days T-Bill, 5 years GOI Bonds and 10 years GOI bonds are 7%, 7.5% and 8% respectively. The companies in the infrastructure space have been earning -13% return on such projects since last one year. The relevant company assets beta is estimated to be 1.8.

The financials of Tesla Star as on 31st March, 2020 and the last 2 years are given below:

Particulars	*31st March, 2020 (₹ crores)*	*31st March, 2019 (₹ crores)*	*31st March, 2018 (₹ crores)*
Liabilities			
Equity capital	*100*	*100*	*100*
Reserves	*1,200*	*1,000*	*950*
Long term loan (12%)	*1,000*	*800*	*500*
Short term loan (9%)	*500*	*300*	*100*
Other liabilities	*200*	*150*	*50*
Total	*3,000*	*2,350*	*1,700*
Assets			
Non-Current Assets	*1,500*	*1,200*	*1,000*
Cash & Bank	*300*	*200*	*100*
Investments	*500*	*300*	*200*
Other Current Assets	*700*	*650*	*400*
Total	*3,000*	*2,350*	*1,700*

The Long-Term Funds under the External Commercial Borrowing (ECB) route is available in foreign currency across tenors as per extant RBI policy for infrastructure projects. The yield curve for USD denominated debt is as below:

2 Year Treasury Yield- 1.5%

3 Year Treasury Yield - 1.55%

10 Year Treasury Yield - 1.45%

The bankers have been quoting a spread of 2% on the relevant tenor treasury yield.

The approximate hedging cost for one year in USD-INR is 5.45% p.a.

The last quoted yields in Indian Fixed Income Market for various debt instruments are as below:

Duration	Instrument	Yield for respective credit ratings (%)	Credit rating
6 months	CP	7.5% - 7.7%	AAA, AA
1 year	CP	8% - 8.20%	AAA, AA
1 year	Corporate Bond	9%- 9.20%	AAA, AA
3 years	Corporate Bond	9.4% - 9.55%	AAA, AA
5 years	Corporate Bond	9.75% - 9.9%	AAA, AA
3 years	Bank Term Loan	11 % - 11.25%	AAA, AA
5 years	Bank Term Loan	12% - 12.25%	AAA, AA
1 year	Short Term Credit	10% - 11% (fixed)	AAA, AA

Last time CRA has given rating of AAA for short and long term facilities of Tesla Star Ltd.

Multiple Choice Questions:

5.1 *Eligibility requirements for an IPO mandates assessment of following parameters.*

(A) *Net worth, Operating profits and Net tangible assets*

(B) *Share capital, Profit after tax and Net monetary assets*

(C) *Net worth and Gross debt*

(D) *Net profit and Net fixed assets*

5.2 *In which of the technique, time value of money is not considered?*

(A) *Payback period*

(B) *Net present value*

(C) *Internal Rate of return*

(D) *Accounting Rate of return*

5.3 *Normal structure of treasury operations does not involve*

(A) *Front office*

(B) Back office

(C) Mid office

(D) Central office

5.4 Which one of the below is not an interest rate risk?

(A) Yield curve risk

(B) Repricing risk

(C) Basis risk

(D) Translation risk

5.5 Reverse Repo and Repo are defined as

(A) Reverse repo is the rate at which commercial banks lend to RBI and Repo is the rate at which RBI lends to Commercial Banks.

(B) Reverse repo is the rate at which commercial banks borrow from RBI and Repo is the rate at which RBI borrows from Commercial Banks.

(C) Reverse repo is the rate at which commercial banks lend to other commercial banks and Repo is the rate at which RBI lends to Government.

(D) Repo is the rate at which commercial banks lend to government and reverse repo is the rate at which RBI lends to Commercial Banks. ***(2 x 5 = 10 Marks)***

5.6 Calculate the 'Base NPV' of the project without capital structure suggestions by the consultant. ***(3 Marks)***

5.7 Calculate cost of equity and recommend whether to go ahead with suggested capital structure by the consultant along with reasons. ***(2 Marks)***

5.8 Suggest various sources of funds along with duration of such funding based on the information given, which can be tapped by Company for this project to optimize the overall cost of capital. Also, explain relevant conditions precedent for suggested funding sources and eligibility of company for the same. ***(5 Marks)***

5.9 Calculate the 'Adjusted NPV' based on your recommendations. ***(5 Marks)***

Answer Case Study 5

Kindly note for answer to question 5.1 to 5.5 no calculation is required to given by the students.

5.1 A

5.2 A

5.3 D

5.4 D

5.5 A

5.6 Cost of Capital for the Project (ra):: Risk Free Rate + ((Risk Free Rate + Risk Premium for the Project i.e. Market Rate - Risk Free Rate)*, Unlevered Beta)

(i) The Cost of Capital of the Project is 17.40% : 5 Year Gor Bonds rate of 7.5% (Since the project duration is 5 years) + (13% - 7.5%)* 1.8

(ii) **Calculation of Present value**

Cash Flow Component	Year 1	Year 2	Year 3	Year 4	Year 5
PBIT	250	325	435	500	550
Tax@35	87.50	113.75	152.25	175.25	192.50
Cash flow post tax	163	211	283	325	358
Depreciation added back	150	150	150	150	150
Cash Flow	313	361	433	475	508
Discount Factor of 17.4%	0.85	0.73	0.62	0.53	0.45
PV of cash flow	266	262	267	250	228

PV of Cash flow is ₹1.273 crores

Total Capital Outflow is ₹1, 150 crams

(iii) Base N PV is ₹ .123 Crores if ₹ 1150 Crores outflow is considered alternatively NPV is ₹ 273 crores if ₹ 1000 Crores outflow IS considered.

5.7 Cost of Equity calculation:

Levered Beta= Unlevered Beta" ((1+(1- Tax Rate)," Debt/Equity))

Hence Levered Beta = 1.8· « 1 +(1-35)*1.1538=3 .15

Cost of Equity - Risk Free Rate + {(Risk Free Rate -+ Risk Premium for the Company i.e. Market Rate - Risk Free Rate)" Levered Beta)

ie. 7.5 + (13% -7.5%* 3.15 - 24.83%

WACC Calculation	
Capital Structure	
Debt to Total Capitalization	53.57%
Equity to Total Capitalization	46.43%
Debt/Equity	**115.38%**
Cost of Equity	
Risk Free Rate	7.50%
Equity Risk Premium	5.50%
Levered Beta	3.15
Cost of Equity	**24.83%**

With such a high cost of equity, it is preferred to keep the internal accruals portion to the minimum. As per. the Bank's Project Finance Capital Structure, minimum equity contribution must be 10 of the capital cost i.e. 10 of ₹ 1 000 crores ₹ 1 00 crores must be equity and rest can be debt. Hence proposed capital structure shalt be ₹,900 crams of Long-Term Loan, RS,100 crores in equity and ₹150 crores in short term working capital facility.

With this structure, new debt equity for the company shall be 1.82 (2550/1400) which is within the industry standard of 2:1 i.e. 2. Hence the proposed structure is suitable from debt covenants perspective.

5.8 Various Source of Funds-

(i) Working Capital:

The short-term loan requirements can be sourced either by Cash Credit, Working Capital Demand Load or by tapping primary short-term debt market by issuing Commercial Paper.

The suggested WCDl facility has inherent issues i.e. cash management lies with Tesla Star and utilization may not be optimum. The rates offered also do not vary hut are fixed.

(ii) Given the flexibility and favorable rates offered by ep market and compliance with all regulatory requirements to issue CP. Testa Star Ltd. Should raise short term finance by issuing the CP.

The requirements can be met from time to time by raising CP even for 7 day to 1-year maturity to optimize the rates as well as duration to match the financing requirements.

In the given scenario, 8% for 1-year CP could be good option to raise ₹150 crores and then refinance the same at the end of the period in anticipation of lower rates available that time.

A corporate would be eligible to issue CP provided

1. That tangible net worth of the company, as per the latest audited balance sheet, is not less than ₹ 4 crores
2. Company has been sanctioned working capita' limit by bank/s or all-India financial institutions/s; and
3. The borrower account of the company is classified as a Standard Asset by the financing bank/s/Institutions
4. All eligible participants shall obtain the credit rating tor issuance of Commercial Paper.

Long Term Loan:

₹900 crores requirement can be fulfilled by availing ECB Of issuing corporate bonds or by taking Bank Term Loan.

As far as duration is concerned, as per cash flow, the 3 years, cumulative cash flow is ₹1 ,107 crores before interest payments. The overall capex is ₹ 1,000 crores and the cash position of the Tesla Star Ltd. from current projects is also very strong (₹800 mores of Cash & Investments as of March 2019). Hence 3 years duration is good enough for the project financing to optimize the interest outgo and secure better rates.

ECB

The 10% of sales are going to be denominated in USD hence it makes sense to borrow in USD to have natural hedge against currency fluctuation as well as to secure lower rates.

The 3 years Treasury yield is 1.55% + 2% spread = 3.55% unhedged cost for ECB.

The quantum shall be ₹ 350 crores equivalent USD.

Particulars	Year 1	Year 2	Year3
Opening balance	350.00	252.43	136.39
Interest@ 3.55%	12.43	8.96	4.84
Repayment from $ sales proceeds	110	125	140
Closing balance	252.43	136.39	1.23

Closing balance of ₹123 crore shall be paid along with last instalment.

The repayment shall be made in tranches as above to coincide with annual $ sales process. this will save 5.45% of hedging cost to the company.

Event though total cost of 3 year ECB debt on hedged oasis comes to 9% (3.55%+5.45%) which is lower than 3 years corporate bond of 9.40% it is recommended' not to source entire ₹ 900 crores capex requirement through ECB route to avoid currency risk on the balance ₹ 550 crores, Hence the ECB amount has been kept at ₹350 crores of USD equivalent

As per extant RBI Policy, natural hedge is allowed.

Domestic Debt Market:

It is best to access corporate debt market 10 raise ₹ 550 crores for 3 years @ 9.40%

The duration matches with overall payback calculation

Equity Contribution

The equity can be either from internal accruals or right issue - either of which will cost same i,e. 24.83%., Internal Accruals are more than enough to fund this, and it is less time consuming hence may be preferred option for toe Company. But rights issue also doable to maintain the better capital structure, 1.82 debt equity ratio is with assumption of rights issue.

5.9 Adjusted NPV with proposed capital Structure

Capital Structure	Cost of Capital	Amt. (₹ Cr)	Interest Amt (₹ cr)
Debt			
Short Term Debt		650	57
Commercial Pape	8%	150	12
Existing Short-Term Debt	9%	500	45
Long Term Debt		1,900	184
ECB	3.55%	350	
Corporate Bonds	9.40%	550	
Existing Term Debt	12%	1000	
Shareholders Woth		1,400	
Equity capital		100	
Reservers		1,200	
Right issues		100	
Total capital		3,950	241
Debt to Total Capitalization		64.56%	
Equity to Total Capitalization		35.44%	
Debt/Equity		182.14%	
Cost of Equity			
Risk Free Rate		7.50%	
Equity Risk Premium,		5.50%	
Levered Beta		3.93	
Cost of Equity		29.12	
Cost of Debt			9.46%
Tax Rate			35.00%
After Tax Cost of Debt			6.15%
WACC			14.29%

Calculation of overall WACC of pre-project level

Particulars	Amount	Weights (A)	Cost of equity and Debt (B)	Total WACC (A-B)
Equity and Reserve	1300	0.46	24.83	11.53
Long term Long	1000	0.36	7.8*	2.79
Short term Loan	500	0.18	5.85*	1.04
Total	2800	1.00		15.36

- Long term loan 12*(1-35) =7.8
- Short term loan= 9* (1-.35) = 5.85

We can see that overall WACC has come down from pre-project level of 15.36 to 14.29

Debit	Year 1	Year 2	Year 3
Interest on ECB	12.43	8.96	4.84
Interest on Domestic Debit	52	52	52
Interest on CP	12	12	12
Total	76	73	69
Tax Savings @35%	26.64	25.43	23.99
PV factor @ 7.25%	0.93	0.87	0.81
PV	24.84	22.11	19.45

7.25 is weighted cost of new debt for the project.

Total PV is ₹66.40 crores.

Hence adjusted NPV with proposed capital structure is ₹ 123 crores + 66.40 crores= ₹189 crores (if ₹ 1150 Crores outflow is considered) alternatively ₹ 339.40 Crores (₹ 273 crores + 66.40 crores) [if ₹ 1000 Crores outflow is considered]