



Roll No.....

Membership No.....

**The Institute of Chartered Accountants of India
Forex & Treasury Management Certificate Course
Evaluation Test Booklet**

Paper 1

10th May, 2015

Duration- 3 Hours

Total Marks- 100

INSTRUCTIONS:

1. Please read the instructions carefully given in the question paper and solve it in the space provided.
2. The candidates are not allowed to carry the evaluation test booklet with them. This should be tied up with sheets provided to answer the question Paper.
3. Use Blue/Black pen only.
4. Do not write your Roll No. or Name or other identification other than in the space (perforated) provided on this sheet.
5. Please show Identity Card to the invigilator for verification of your identity, when asked.
6. The candidates may use the simple calculator.
7. In order to get full credit on the problems, the candidates must show all their rough work/ other workings.

(Participant Signature)

(Invigilator Signature)

PLEASE RETURN THIS BOOKLET BEFORE LEAVING THE EXAMINATION HALL

Date : 10th May, 2015
Centre : Delhi/ Mumbai /Chennai//Bangalore/Pune.

(Do not write your Roll No. and Membership number anywhere in the answer sheet except as mentioned above)

Checked by

Verified by

CERTIFICATION COURSE ON FOREX AND TREASURY MANAGEMENT

S. No.	Total Number of Questions	Questions to be answered	Total Marks	Marks Obtained
Multiple Choice - Section A	65	65	65	
Short Notes – Section B	7	5	25	
Case Study – Section C	2	1	10	
Total	74	71	100	

Section A

Number of questions: 65

Marks: 65

Multiple choices: There may be more than one correct answer. Please [✓] mark for the correct answer.

Part A: Answer all questions.

1 mark each

1. The independent risk assessment of treasury function is done by?
 - a. Front office
 - b. **Mid office**
 - c. Back office
 - d. Both b and c
2. What is duration of a zero coupon bond having residual maturity 5 years ?
 - a. Lower than 5 years
 - b. Zero
 - c. **5 Years**
 - d. Higher than 5 years
3. An increase in rate of interest in the economy will appreciate the value of an Existing?
 - a. **Liability**
 - b. Asset
 - c. Both asset and liability
 - d. The value of asset and liability will be insensitive to change in rate of interest
4. Value at Risk, as measure, is used to measure?
 - a. Actual profit
 - b. Marginal loss
 - c. Actual loss
 - d. **Potential loss**
5. The ALM framework is based upon ?
 - a. Process
 - b. Organisation
 - c. Information system
 - d. **All of the above**
6. Which one of the following is not a major risk for banking institutions?
 - a. **Operational risk**
 - b. Legal risk
 - c. Credit risk
 - d. Market risk
7. Why banks invest in Non SLR securities?

- a. Lower the riskiness SLR portfolio
 - b. Higher Return
 - c. To reduce the duration of portfolio**
 - d. Both b and c
8. Working capital turnover measures the relationship of working capital with?
- a. **Fixed assets**
 - b. sales
 - c. Purchase
 - d. Stock
9. Which of the following does not help to increase current ratio?
- a. Issue of debentures to buy stock
 - b. Issue of debentures to pay creditors
 - c. Sale of investment to pay to creditors
 - d. Avail bank overdraft to buy machine**
10. Which of the following statements is correct?
- a. A higher receivable turnover is not desirable
 - b. Interest Coverage ratio depends upon tax rate
 - c. Increase in net profit ratio means increase in sales
 - d. Lower debt-equity ratio means lower financial risk**
11. Ratio Analysis can be used to study liquidity, turnover, profitability, etc. of a firm. What does Debt-Equity Ratio help to study?
- a. **Solvency**
 - b. Liquidity
 - c. Turnover
 - d. Profitability
12. Which of the following is an indirect method of quoting an exchange rate in Indian Foreign exchange market?
- a. 100 JPY = 50 INR
 - b. 1 USD = Rs 60
 - c. 1 INR = JPY 2**
 - d. 1 GBP = 1.6
13. Usage of cross rates in exchange arithmetic arises when?
- a. Calculating the exchange rate for a foreign currency
 - b. Calculating exchange rate for not directly traded currencies**
 - c. There is nothing like cross rate
 - d. Calculating rates for direct & indirect quoted currencies
14. A customer tendered an export bill for USD 1000 for negotiation at the bank when the applicable rate was Rs 61. The bank delayed the negotiation due to shortage of staff. When finally negotiated, the applicable exchange rate was Rs 62. The bill became overdue and the bank crystallised it when the rate applied was Rs 63. However, fortunately, the bill was paid after some time and the ruling rate at that time is Rs 62. Ignoring bank charges & interest, what is the loss or gain to the customer?

- a. Gain of Rs. 1000
 - b. Loss of Rs. 2000
 - c. **Loss of Rs. 1000**
 - d. No Loss No gain
15. USD LIBOR for six months is 0.3279 % pa and that for GBP is 0.69075% pa. Conceptually, we can say that
- a. Forward rates of GBP & USD cannot be guessed by this
 - b. GBP & USD are likely to move in tandem in view of near equal interest rate
 - c. GBP is at forward premium with reference to USD
 - d. **GBP is at forward discount with reference to USD**
16. Inco terms are defined by?
- a. World Trade Organization (WTO)
 - b. **International Chamber of Commerce (ICC)**
 - c. Director General of Foreign Trade (DGFT)
 - d. Foreign Exchange Dealers Association of India (FEDAI)
17. The account maintained by an our Foreign Branches / Correspondents with our domestic branch (in India) is known as ?
- a. Loro a/c
 - b. Special a/c
 - c. Nostro a/c
 - d. **Vostro a/c**
18. Name the Exchange Control Authority in India?
- a. ECA
 - b. FEDAI
 - c. **RBI**
 - d. DGFT
19. The Uniform Customs and Practice for Documentary Credits are drawn by ?
- a. RBI
 - b. FEDAI
 - c. **International chamber of commerce**
 - d. IBA
20. The rate quoted for clean instruments returned unpaid is ?
- a. **TT selling rate**
 - b. DD buying rate
 - c. Inter-office rate
 - d. TT buying rate
21. The transactions of the Bank undertaken to sell the surplus and buy the required foreign currencies in order to keep its position 'square' are known as?
- a. **Cover operations**
 - b. Merchant transactions

- c. Exchange transaction
 - d. Forward transaction
22. A foreign currency travellers cheque is valid for?
- a. 6 months
 - b. 3 months
 - c. 1 month
 - d. **No limit unless otherwise mentioned**
23. When long term Bonds have lower yield than the short term Bonds?
- a. It is said to be an upward sloping curve
 - b. It is said to be a flattening curve
 - c. It is said to be mixed sloping curve
 - d. **It is said to be an inverted yield curve**
24. The current interest rate on a one-year bond is 18%, and you expect that the interest rate on the one-year bond next year shall be 20%. What would be your expected return over the two years?
- a. 17%
 - b. 15 %
 - c. **19%**
 - d. 20%
25. In case a currency pair USD/JPY is trading 120.80 and USD Libor for a year is 3% and JPY Libor is 5%, then USD/JPY One year Forward rate shall be?
- a. **123.14**
 - b. 118.14
 - c. 142.14
 - d. 136.14
26. Arbitrage is the advantage of?
- a. Difference in products in two markets
 - b. **Difference in prices in two markets**
 - c. Difference in people in two markets
 - d. Difference in time in two markets
27. In case the Rate of Interest of right hand currency is 8% p.a and Rate of Interest of left hand currency is 5% in the currency pair written as USD/INR, the following is correct :
- a. INR is in premium
 - b. **USD is in premium**
 - c. INR shall appreciate
 - d. USD shall appreciate
28. Uncovered Interest Rate Arbitrage involves?
- a. Hedging today
 - b. Hedging later
 - c. No hedging
 - d. Forward hedge at inception

29. Why is Net Profit Margin not a proper measure of the performance of the Company?
- It does not take into account the effect of future earning potential
 - It does not take into account the effect of cash aspects
 - It does not take into account the effect of leverage
 - Both b and c**
30. Evaluating financial statement information can be divided into broad categories including ?
- vertical analysis (shows the relationship between numbers on a financial statement for one year)
 - horizontal analysis (compares financial statement amounts to amounts from previous years in terms of the percentage of change)
 - ratio analysis (expresses the relationship of one number to another number)
 - All of the above**
31. All of the following statements are true regarding ratios that measure a company's profitability except ?
- earnings per share is the only ratio that must appear on the face of the income statement
 - companies strive for a high return on sales
 - return on assets (ROA) is usually greater than return on equity (ROE) because creditors demand a higher return than shareholders**
 - Return on assets includes interest expense plus net income in the numerator because these are the returns to the two groups that have financed company assets
32. _____ a snapshot of the financial condition of the firm at a particular time?
- The income statement provides
 - The cash flow statement provides
 - The fund flow statement provides
 - The balance sheet provides**
33. One reason that capital markets are not truly global is ?
- Exchange rates are too volatile
 - Investors are too timid
 - there is not a global standard for international financial
 - some firms are not allowed to sell their shares in other
 - Both C and D**
34. A 7.5 percent par Treasury bond matures in exactly 13 years. A 5.0 percent par Municipal bond matures in exactly 13 years. Suppose both bonds have the same default risk. At What marginal tax rate would the two bonds have the same after-tax yield?

- a. 37.833
 - b. 33.333**
 - c. 34.633
 - d. 34.733
35. A zero-coupon bond with a par value of 1000 dollars matures in 10 years, 59 days. If the Bond yields 4.5 percent, what is the clean price? Assume 183 days in a half-year?
- a. **636.24**
 - b. 645.43
 - c. 626.93
 - d. 630.37
36. Consider the following two statements:
Statement No 1: Global depository receipts (GDRs) are listed in USA
Statement no 2: GDR are necessarily to be denominated in US Dollar.
On the basis of above select one of the following
- Statement 1 , Statement 2
- a. True, False
 - b. False, True
 - c. True, True
 - d. False, False**
37. Commercial papers are issued for the maximum period of
- a. 1 years**
 - b. 6 months
 - c. 3 years
 - d. None of these
38. Treasury bills are short terms borrowing by
- a. Corporate
 - b. Partnership firms
 - c. Government of India**
 - d. None of these
39. Zero coupon bonds was issued for the first time.
- a. US Security market**
 - b. Indian security market
 - c. Japanese security market
 - d. UK Security market
40. Whole sale debt market is operated at ?
- a. NSE**
 - b. RBI
 - c. IRDA
 - d. SEBI
41. Certificate of deposit is a marketable receipt of funds issued by?
- a. RBI
 - b. Commercial bank**

- c. Financial institutions
 - d. NBFC
42. Money market instruments are ?
- a. Treasury bills**
 - b. Certificate of deposit
 - c. Commercial paper
 - d. All of these
43. Inter-bank call money refers to borrowing among banks ?
- a. Overnight**
 - b. 2 days
 - c. More than 11 days
 - d. More than 14 days
44. A 10.0 percent par municipal bond matures in exactly 13 years. For an investor at The 29.0 percent marginal tax rate, what is the taxable-equivalent yield?
- a. 14.885
 - b. 14.085**
 - c. 15.385
 - d. 13.885
45. Alternative Investment market (AIM) is based at ?
- a. Singapore
 - b. Luxemburg
 - c. London**
 - d. New York
46. Bonds sold foreign country and are denominated in a currency other than that of the country in which they are sold are known as ?
- a. Eurodollars
 - b. Foreign bonds
 - c. Euro-currencies
 - d. Euro bonds**
47. Call & Put Provision on bonds are there?
- a. Change the face value of the bond at a later rate
 - b. Change the maturity of the bond at a later date.**
 - c. Change the coupon rate at a later date
 - d. Both b and c
48. A trader intending to rollover its contract will never take a position in
- a. Tom
 - b. Cash**
 - c. Spot
 - d. Outright forward contract
49. If a company contracts today for some future date of actual currency exchange, they will be making use of a:
- a. Futures rate

- b. Variable rate
 - c. Stock rate
 - d. Forward rate**
50. What does “OTC” stands for?
- a. Over the counter**
 - b. Over the customer
 - c. Order to cash
 - d. None of the above
51. Forward contracts: ?
- a. Contain a commitment by the owner, and are standardized.
 - b. contain a commitment by the owner,
 - c. Contain a commitment by the owner, and can be tailored to the desire of the owner.**
 - d. contain a right but not a commitment by the owner, and are standardized
52. Futures contracts are typically _____; forward contracts are typically _____ ?
- a. sold on an exchange; sold on an exchange
 - b. Offered by commercial bank ; sold on an exchange
 - c. Sold on exchange; offered by commercial banks**
 - d. Offered by commercial bank ; sold by commercial bank
53. An agreement to exchange fixed interest rate payments on a loan for floating interest rate payments is:
- a. A floating rate euro bond
 - b. A interest rate swap**
 - c. A flip flop option
 - d. A currency swap
54. Which types of market participants can be termed as the most important participant in foreign exchange market?
- a. Retail customers
 - b. Commercial banks
 - c. Foreign exchange dealers
 - d. Central banks**
55. In which of the system, the official exchange rates are set and maintained by the regulatory (Central government/Central bank/other authority)?
- a. Pegged exchange rate system**
 - b. Floating exchange rate system
 - c. Banking exchange rate system
 - d. None of the above
56. The single purchase or sale of a currency for future delivery is called ?
- a. Spot transaction
 - b. FX swaps
 - c. Outright forward transactions**
 - d. Reserve transactions

57. The authorized dealers under FEMA are classified into?
- Four categories
 - Six categories
 - Two categories
 - Three categories**
58. The term Loro account means ?
- Our account with you
 - Their account with you**
 - My account with you
 - Your account with us
59. The acronym FEDAI stands for?
- Foreign Exchange Dealers Association of India**
 - Federal Export Dealers Association of India
 - Fixed Earners Draft Agreement on Interest
 - Foreign Exchange Draft Agreement on Interest
60. The anchor currency that was used in the original scheme of IMF was ?
- Pound sterling
 - Euro
 - US Dollar**
 - Yen
61. Derivatives are so called because ?
- they are subsidiary products in the market
 - They are derived from combination of different assets
 - Their value is dependent on the value of some other fundamental variable.**
 - They are traded on derivative exchanges.
62. India s foreign exchange rate system is ?
- Managed float**
 - free float
 - Fixed
 - Fixed target of band
63. At present the role of IMF in the exchange rate policies of its members is to?
- Prohibit floating rate
 - Have surveillance and express opinion on policies**
 - Restrict the exchange rate fluctuation within a band
 - Permit free floating exchange rate
64. **What does “FIMMDA”** stand for ?
- Fixed Income Money Markets & Derivatives Association**
 - Foreign Income Money Markets & Derivatives Association
 - Floating Income Money Markets & Derivatives Association
 - Fixed Income Money Markets & Derivatives Affiliation
65. Category III of Authorized dealers in India are ?
- all scheduled commercial banks in India.
 - all public sector banks in India.
 - the banks that have been authorized by RBI to deal in foreign exchange.
 - selected financial and other institutions**

Section B

Number of questions: 7

Marks: 25

Note: Answer any five questions. Each answer will carries 5 marks

[Unrelated answers & answers exceeding the brief will attract negative marks]

1. Write short note on SAP Treasury ?

Ans.: SAP Treasury provides an opportunity to maintain full control over liquidity planning with help of SAP Cash and Liquidity Management application. Managing cash from sales orders to purchase orders with direct updates from bank – for a 360-degree view of treasury operations is made possible with SAP Treasury.

Cash & Liquidity Management Application delivers:

- Basel regulatory compliance through its Intraday Liquidity Management module
- Significant cost reductions by retiring multiple legacy systems and spreadsheets, whilst reducing the manual workload
- Reduced operational risk through real-time reconciliations and same day exception identification and resolution
- Improved balance management through automation of standard tasks, leaving staff to focus on critical tasks
- More profitable cash management by real-time tracking and monitoring of surplus positions, automated account sweeping and removing reliance on costly intra-day borrowing to boost liquidity
- More effective investment and funding decisions provided by greater visibility into cash movements

2. What do you understand by lockboxes ?

Ans.: Companies receive cheques from customers in the mail or through lockboxes. With a lockbox a processor receives mail at a specified lockbox address, processes the remittances and deposits them in the payee's account. There are a number of advantages to lockboxes as opposed to receiving cheques through the mail.

- Mail float is usually reduced because a processor uses its own unique PIN code to speed mail delivery. A lockbox processor may also make more frequent mail pickups.
- Processing float can be reduced because cheques are mailed directly to the lockbox processor. This eliminates company handling time. Also many processors operate 24 hours a day, seven days a week. In effect, they specialize in the efficient processing of receipts and deposits.
- Availability float is also reduced because the processor works to meet critical availability deadlines. These are deadlines by which cheques must reach the bank's proof and transit

area. For example, 9 a.m. could be the deadline for receiving same-day availability for cheques drawn on banks in the same city. Different processors will have different availability schedules. In addition lockboxes provide efficient processing through economies of scale, and an audit trail and control .

3. Explain the term “NDF(Non- deliverable forward)” ?

Ans .: Non-Deliverable Forward is a _cash-settled‘, short-term forward contract on a thinly traded or non-convertible foreign currency, where the profit or loss at the time at the settlement date is calculated by taking the difference between the agreed upon exchange rate and the spot rate at the time of settlement, for an agreed upon notional amount of funds.

NDFs have a fixing date and a settlement date. The fixing date is the date at which the difference between the prevailing market exchange rate and the agreed upon exchange rate is calculated. The settlement date is the date by which the payment of the difference is due to the party receiving payment. NDFs are commonly quoted for time periods of one month up to one year, and are normally quoted and settled in U.S. dollars. They have become a popular instrument for corporations seeking to hedge exposure to foreign currencies that are not internationally traded. *Non-Deliverable forwards (NDF)* are similar to outright forward contracts but allow hedging of currencies where government regulations restrict foreign access to local currency or the parties want to compensate for risk without a physical exchange of funds. NDFs settle against a fixing rate at maturity, with the net amount in USD, or another fully convertible currency, either paid or received.

Since each forward contract carries a specific delivery or fixing date, forwards are more suited to hedging the foreign exchange risk on a bullet principal repayment as opposed to a stream of interest and principal payments.

In an NDF a *principal amount, forward exchange rate, fixing date and forward date*, are all agreed on the trade date and form the basis for the net settlement that is made at maturity in a fully convertible currency.

At maturity of the NDF, in order to calculate the net settlement, the forward exchange rate agreed at execution is set against the prevailing market 'spot exchange rate' on the fixing date which is two days before the value (delivery) date of the NDF.

4. Explain interest rate sensitivity?

Ans.: Interest rate sensitivity is a measure of price change of a fixed-income asset as a result of changes in the interest rate environment. Securities that are more sensitive will have greater price fluctuations than those with less sensitivity. This type of sensitivity must be taken into account when selecting a bond or other fixed-income instrument that the investor may sell in the secondary market.

Generally, the longer the maturity of the asset, the more sensitive the asset will be to changes in interest rates. A fund with duration of 10 years is twice as volatile as a fund with five-year duration. Duration also gives an indication of how a fund's NAV will change as interest rates change. A fund with five-year duration would be expected to lose 5% from its NAV if interest rates rose by one percentage point or gain 5% if interest rates fell by one percentage point. Changes in interest rates are watched closely by bond and fixed income traders, as the resulting price fluctuations will affect the overall yield of the securities. Investors who understand the concept of duration can immunize their fixed-income portfolios to changes in short-term interest rates.

5. Explain ALM (asset liability management) process?

Ans.: The ALM system seeks to introduce a formalized framework for management of market risks through measuring, monitoring and managing liquidity, exchange rate and interest rate risks of a FI that need to be closely integrated with the FIs' business strategy. The initial focus of the ALM function should be to enforce the discipline of market risk management viz. managing business after assessing the market risks involved. The objective of good risk management systems should be to evolve into a strategic tool for effective management of FIs.

The ALM process rests on three pillars:

- ALM Information System
 - Management Information System
 - Information availability, accuracy, adequacy and expediency
- ALM Organisation
 - Structure and responsibilities
 - Level of top management involvement
- ALM Process
 - Risk parameters
 - Risk identification
 - Risk measurement
 - Risk management
 - Risk policies and tolerance levels.

ALM has to be supported by a management philosophy which clearly specifies the risk policies and tolerance limits. This framework needs to be built on sound methodology with necessary supporting information system as the central element of the entire ALM exercise is the availability of adequate and accurate information with expedience. Thus, information is the key to the ALM process. There are various methods prevalent world-wide for measuring risks. These range from the simple Gap Statement to extremely sophisticated and data intensive Risk Adjusted Profitability Measurement methods. The present guidelines would require comparatively simpler information system for generating liquidity gap and interest rate gap reports.

6. Global Depository Receipts (GDR)?

Answer: A Depository Receipt (DR) is a negotiable instrument in the form of securities that is issued by a foreign public listed company and is generally traded on a domestic stock exchange. For this, the issuing company has to fulfil the listing criteria for DRs in the other country. Before creating DRs, the shares of the foreign company—which the DRs Represent—are delivered and deposited with the custodian bank of the depository creating the DRs. Once the custodian bank receives the shares, the depository creates and issues the DRs to the investors in the country where the DRs are listed. These DRs are then listed and traded in the local stock exchanges of the other country. DRs have often been used by domestic companies as investment vehicles in the form of American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) for accessing foreign markets and investors. American Depository Receipts are typically traded on US stock exchanges while the DRs that are traded on exchanges in other parts of the world are known as Global Depository Receipts.

7. Discuss the objective of portfolio management?

Ans.; Safety of fund : Safety of fund is the primary objective of portfolio management. While making investment decisions pertaining to securities, it is a must for investors/portfolio managers to ensure that their investment is safe and it will return with appreciation in value.

Liquidity: Investors are very much interested in the liquidity aspect of securities in the portfolio. An investor shall make investment in those securities which can be encashed without any difficulty or involvement of time to meet urgent need for funds.

Reasonable Return: Reasonable return on securities is another important aspect of portfolio management. A sound investor or portfolio manager before making investment would like to judge the interest/dividend paying capacity/rate of the companies in which investment opportunities exist. The investor is very much concerned with the appreciation in value of securities because it will ultimately determine the profitability of his investment. (Capital gains plus dividends/interest together determine the return on investment).

Minimum Risk : The portfolio investments are subject to certain unforeseen risks and it is the judgment and intelligence of the portfolio manager to reduce this element of risk to minimum. Practically, portfolio managers achieve this objective of minimizing risk by effective investment planning and periodical review of the market situation and economic environment affecting the financial markets.

Section C

Number of questions: 2

Marks: 10

Note : Case Studies. Answer any one. Max 10 marks

1. Mr Satish is having a investment firm and raised a Rs 100 Crore funding from a wealthy individual at a rate of 7% for 1 year, He promised to return than wealthy individual a return higher than the borrowing rate after deducting a margin of 1% on the return, Considering his commitment, he wants to make a risk free return higher than the borrowing cost and sought an advice to you as an investment manager to invest into a Government security which carries a lower risk. (consider that there is no transaction charge and tax in buying/selling a bond)
A Govt. security is available in the market(which is also most tradable) with the following particulars:

- a. Coupon Rate : 12%, payable annually
- b. Face Value :Rs 100
- c. Year to maturity : 6 years
- d. Current Market Price : Rs 110
- e. Maximum yield of the bond in past 3 years : 10.50%

From the above, compute

1. Yield to Maturity
2. Duration of the Bond

Will you suggest the bond to Mr Satish to invest and what would be downside risk to Mr satish ?

Answer:

a. The YTM (approximately) = $12 + (100 - 110) / 6 = 9.75\%$
 $0.6 * 110 + 0.4 * 100$

b. Duration

Time	Intial cash flow	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cash flow	-110	12	12	12	12	12	12
PV of Rs 1 @9.75%		0.9108	0.83	0.7558	0.6892	0.6283	0.5722
PV of the cash flow ,discounted at 9.75%		10.93	9.96	9.07	8.27	7.54	64.09
Proportion of bond value		0.099	0.091	0.082	0.075	0.069	0.583
Proportion of the bond value * time(a)		0.099	0.181	0.247	0.301	0.343	3.494
Sum of a	4.665 years = Duration						

C : , Yes, I would suggest to Mr Satish to buy the bond as

- a. It gives a risk free return of 9.75% as compared to borrowing cost of 7% at the time of purchase.
- b. The bond is highly tradable and Mr Satish can sell the bond in the market and pay back the money.
- c. The bond is subject to market risk and however, the maximum yield on the bond in past 3 years is 10.75% and hence a call can be taken that the yield would not increase beyond 10.75%, so that the holding yield for Mr Satish would not come below 7%. The same can be computed as below

Computation of Price of the bond at the yield of 10.75% (worst yield basis) =

Time	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Cash flow	12	12	12	12	12	112	
PV of Rs 1 at 10.75%	0.9029	0.8152	0.7361	0.6646	0.6001	0.5419	
PV of the cash flow ,discounted at 10.75%	10.83	9.78	8.83	7.97	7.20	60.59	105.30

Thus the above, it can be observed that at worst yield basis also the price for sale after 1 Year would be Rs 105.00

Holding yield of Mr. Satish if sold at Rs 105 at the end of year

$$\frac{12 + (105 - 110) / 1}{5} = 7\%$$

5

As the holding yield of the bond is 7%, a call can be taken by Sh Satish to buy the bond 9% GOI 2019 at the current yield 9.75% and sell it after 1 year in the tradable market, so that he can return the principal and the rate of interest promised.

2. In recent two years, Indian rupees have shown a very fluctuating behavior against US dollars. In past two years, Indian rupees have depreciated significantly against US dollar and this has resulted into huge loss to the Indian importer while in turn significant profit in foreign exchange transactions by exporter specifically by software companies. What could be the reasons for which Indian rupee has erosion significantly?

Ans. The Indian Rupee has depreciated to an all time low with respect to the US Dollar. On 28th August 2013, the Indian rupee had gone down to 68.825 against the Dollar and the situation improved only after Reserve Bank of India allowed state owned oil companies to buy dollars through a special window. This has had an immediate effect as is evident from the fact that the INR has started at 67 against the USD at the early proceedings in the Interbank Foreign Exchange Market. The question, however, is why this is happening. There could be several reasons for which rupee depreciated sharply against dollar:

1. Basic law of economics: Gap in demand and supply of dollar: As per the rudimentary laws of economics if the demand for USD in India exceeds its supply then its worth will go up and that of the INR will come down in that respect. It may be that importers are the major entities who are in need of the dollar for making their payments. Another possibility here could be that the Foreign Institutional Investors are withdrawing their investments in the country and taking them elsewhere.

2. The Import-Export Imbalance: India imports a large amount of goods and services. Gold is one of the majorly imported commodities. India also imports a lot of coal, despite having the fourth-largest coal reserves in the world. This is because these reserves are not being used, due to issues regarding environment clearances. Exports are not high because production in India is of low quality due to lack of technological advancements, and Indian producers are unable to compete with the quality of foreign goods and services. Hence India's import value exceeds its export value by a large amount, thereby increasing the Current Account Deficit. This increase in the deficit has propelled the value of the rupee downward to some extent.

3. Lack of Reforms: The Direct Tax Code (DTC), Goods and Service Tax (GST) and other key policy reforms have been waiting for years. The business community has strongly opposed the retrospective tax law (GAAR). Fiscal deficit is around 5% of GDP, a very high number by historical standards, despite attempts to control the subsidy bills. Investor sentiment has also been affected by a high level of opposition to the government's change in FDI policy, both from opposition and allies.

4. Lower Than Expected Growth: The high growth rates in India had been attracting a lot of foreign investors in the past. But in the recent months, there has been a slowdown in growth. Reducing the interest rates so as to accelerate growth may give a boost to inflation, which is currently at very high levels in the country

5. Persistent Inflation: India has been experiencing nearly 8% inflation over the last two years. The Real Effective Exchange Rate (REER) index has fallen by 13.84% during the last year for India, it has fallen by 24%. REER index measure includes the level of inflation differences across nations; it reflects a country's competitiveness in international trade. Normally, such high levels of inflation are controlled by increasing interest rates. But this option may not work in the Indian circumstances, because the Indian interest rates are already very high, and increasing them further would affect the already declining growth rates.

6. Dependence on foreign money: India's current account deficit was financed by foreign money for the last many years. Withdrawal of money by overseas investors led to the weakness in the rupee.

7. Due to Global Uncertainty: The performance of US equities had been on a record setting high, and the improvements in the labor market have also made people optimistic about the US. During this time, there was an economic crisis among major European countries, which was popularly known as the Euro-zone crisis. As a result, the monetary policies were more along the lines of aggressive monetary easing measures such as negative deposit rates, Hence the US dollar looks like a very safe investment haven for investors.

8. Speculative trading: Speculative trading in the currency markets was putting further pressure on the Indian rupee.