Note: All questions are compulsory.

Question 1 (4 Marks)

TMC Holding Ltd. has a portfolio of shares of diversified companies valued at Rs. 400 crore enters into a swap arrangement with None Bank on the terms that it will get 1.15% quarterly on notional principal of Rs. 400 crore in exchange of return on portfolio which is exactly tracking the Sensex which is presently 21,600. You are required to determine the net payment to be received/ paid if Sensex turns out to be 21,860, 21,780, 22,080 and 21,960 at the end of each quarter.

Question 2(5 Marks)

An importer requested his bank to extend for Forward contract of US $ 25,000 which is due for maturity on 31-10-2015 for further periods of six month. The other details are as under:

> Contract rate US $ 1 = ` 61.00 The US
>
> $ quoted on 31-10-2015 Spot : `
>
> 60.3200/60.6300
>
> Six month premium : 0.86 %/0.98%

Margin money for buying and selling rate are 0.086% and 0.15% respectively.

Compute

> (1)   Cost to importer in respect to extension of forward contract.
> (2)   New Forward contract rate.

Question 3(5 Marks)

On April 3, 2016, a Bank quotes the following:

Spot exchange Rate (US $ 1)	INR 66.2525	INR 67.5945
2 months' swap points	70	90
3 months' swap points	160	186

In a spot transaction, delivery is made after two days.

Assume spot date as April 5, 2016.

Assume 1 swap point = 0.0001,

You are required to:
a.   ascertain swap points for 2 months and 15 days. (For June 20, 2016),
b.   determine foreign exchange rate for June 20, 2016, and
c.   compute the annual rate of premium/discount of US$ on INR, on an average rate.

Question 4(6 Marks)

LMN Ltd. is an export oriented business house based in Mumbai. The Company invoices in customer's currency. The receipt of US $ 6, 00, 000 is due on 1st September, 2016. Market information as at 1st June 2016 is:

Exchange Rates	US$/`	Exchange Rates US $ / `		Contract Size
Spot	0.01471	Currency Futures		
1 Month Forward	0.01464	June	0.01456	` 30,00,000
3 Months Forward	0.01458	September	0.01449	

	Initial Margin (`)	Interest Rates in India %
June	12,000	8.00 p.a.
September	16,000	8.50 p.a.

On 1st September, 2016, the spot rate US $/` is 0.01461 and currency futures rate is US $/` 0.01462.

It may be assumed that variation in Margin would be settled on the maturity of the futures contract.

Which of the following methods would be most advantageous for LMN Ltd.:

(a) using Forward Contract,

(b) using Currency Futures; and

(c) not hedging Currency Risks

Show the calculations and comment.

Question 5 (6 Marks)

The following market data is available:

Spot USD/JPY 116.00

Deposit rates p.a.	USD	JPY
3 months	4.50%	0.25%
6 months	5.00%	0.25%

Forward Rate Agreement (FRA) for Yen is Nil.
   What should be 3 months FRA rate at 3 months
1. forward?
2. The 6 & 12 months LIBORS are 5% & 6.5% respectively. A bank is quoting 6/12 USD FRA at 6.50 – 6.75%. Is any arbitrage opportunity available?

Calculate profit in such case.

Question 6 (8 Marks)

A Portfolio Manager (PM) has the following four stocks in his portfolio:

Security	No. of Shares	Market Price per share (`)	β
VSL	10,000	50	0.9
CSL	5,000	20	1.0
SML	8,000	25	1.5
APL	2,000	200	1.2

Compute the following

1. Portfolio beta
2. If the PM seeks to reduce the beta to 0.8, how much risk free investment should he bring in?

3. If the PM seeks to increase the beta to 1.2, how much risk free investment should he bring in?

Question 7 (8 marks)
    (a)   Distinguish between Cash and Derivative Market .

    (b)   Briefly explain the main strategies for exposure management.

Question 8 (8 marks)
ABC Ltd., a US Firm, will need £ 5,00,000 in 180 days. In this connection, the following information is available:

Spot Rate 1£ = $ 2.00

180 days forward rate of £ as of today is $ 1.96

Interest rates are as follows:	US	UK
180 days deposit rate	5.0%	4.5%
180 days borrowing rate	5.5%	5.0%

A call option on £ that expires in 180 days has an exercise price of $ 1.97 and a premium of $ 0.04.

ABC Ltd. has forecasted the spot rates for 180 days as below:

Future rate	Probability
$ 1.91	30%
$ 1.95	50%
$ 2.05	20%

Which of the following strategies would be cheaper to ABC Ltd.?

(a) Forward Contract;
(b) A money market hedge;
(c) A call option contract; and
(d) No hedging option

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