Test Paper-1

Strategic Financial Management

Full Syllabus TP - 2

Duration : 3 Hours **Marks : 100**

Question 1(A) (5 Marks)

XYZ, a large business house is planning to acquire ABC another business entity in similar line of business. XYZ has expressed its interest in making a bid for ABC. XYZ expects that after acquisition the annual earning of ABC will increase by 10%.
Following information, ignoring any potential synergistic benefits arising out of possible acquisitions, are available:

	XYZ	ABC	Proxy entity for XYZ & ABC in the same line of business
Paid up Capital (` Crore)	1025	106	--
Face Value of Share is `10			
Current share price	₹ 129.60	₹ 55	--
Debt : Equity (at market values)	1 : 2	1 : 3	1 : 4
Equity Beta	--	--	1.1

Assume Beta of debt to be zero and corporate tax rate as 30%, determine the Beta of combined entity.

Question 1(B) (5 Marks)

On 1 October 2015 Mr. X an exporter enters into a forward contract with a BNP Bank to sell US$ 1,00,000 on 31 December 2015 at ` 65.40/$. However, due to the request of the importer, Mr. X received amount on 28 November 2015. Mr. X requested the bank the take delivery of the remittance on 30 November 2015 i.e. before due date. The inter-banking rates on 30 November 2015 was as follows:

Spot	₹ 65.22/65.27
One Month Premium	10/15

If bank agrees to take early delivery then what will be net inflow to Mr. X assuming that the prevailing prime lending rate is 18%.
Bank will buy from customer at the agreed rate of ₹ 65.40. In addition to the same if bank will charge/ pay swap difference and interest on outlay funds

Question 1(C) (5 Marks)

SAM Ltd. has just paid a dividend of ₹ 2 per share and it is expected to grow @ 6% p.a. After paying dividend, the Board declared to take up a project by retaining the next three annual dividends. It is expected that this project is of same risk as the existing projects.
The results of this project will start coming from the 4th year onward from now. The dividends will then be ₹ 2.50 per share and will grow @ 7% p.a.

An investor has 1,000 shares in SAM Ltd. and wants a receipt of at least ₹ 2,000 p.a. from this investment.

Show that the market value of the share is affected by the decision of the Board. Also show as to how the investor can maintain his target receipt from the investment for first 3 years and improved income thereafter, given that the cost of capital of the firm is 8%.

Question 1(D) (5 Marks)

Bank A enter into a Repo for 14 days with Bank B in 10% Government of India Bonds 2018 @ 5.65% for ₹ 8 crore. Assuming that clean price be ₹ 99.42 and initial Margin be 2% and days of accrued interest be 262 days. You are required to determine

(i) Dirty Price
(ii) Repayment at maturity. (consider 360 days in a year).

Question 2(A) (5 Marks)

On 1st April, an open ended scheme of mutual fund had 300 lakh units outstanding with Net Assets Value (NAV) of ₹ 18.75. At the end of April, it issued 6 Lakh units at opening NAV plus 2% load, adjusted for dividend equalization. At the end of May, 3 Lakh units were repurchased at opening NAV less 2% exit load adjusted for dividend equalization. At the end of June, 70% of its available income was distributed.

In respect of April - June quarter, the following additional information are available

	₹ in lakh
Portfolio value appreciation	425.470
Income of April	22.950
Income of May	34.425
Income of June	45.450

You are required to calculate :

1. Income available for distribution;
2. Issue price at the end of April,
3. Repurchase price at the end of May, and

Net asset value (NAV) as on 30th June

Question 2(B) (5 Marks)

Current value of BSE Index (SR)	5000
Value of portfolio	₹ 10,10,000
Risk free interest rate	9% p.a.
Dividend yield on Index	6% p.a
Beta of portfolio	1.5

We assume that a future contract on the BSE index with four months maturity is used to hedge the value of portfolio. One future contract is for delivery of 50 times the index. Based on the above information

Calculate:

a) Fair Future Price of Future Contract.

b) Calculate the gain on short futures position after 4 months with the help of index if it turns out to be 4,500 in three months.

Question 3(A) (8 Marks)

Following information is given in respect of WXY Ltd., which is expected to grow at a rate of 20% p.a. for the next three years, after which the growth rate will stabilize at 8% p.a. normal level, in perpetuity.

	For the year ended March 31, 2014
Revenues	₹ 7,500 Crores
Cost of Goods Sold (COGS)	₹ 3,000 Crores
Operating Expenses	₹ 2,250 Crores
Capital Expenditure	₹ 750 Crores
Depreciation (included in COGS & Operating Expenses)	₹ 600 Crores

During high growth period, revenues & Earnings before Interest & Tax (EBIT) will grow at 20% p.a. and capital expenditure net of depreciation will grow at 15% p.a. From year 4 onwards, i.e. normal growth period revenues and EBIT will grow at 8% p.a. and incremental capital expenditure will be offset by the depreciation. During both high growth & normal growth period, net working capital requirement will be 25% of revenues.

The Weighted Average Cost of Capital (WACC) of WXY Ltd. is 15%.

Corporate Income Tax rate will be 30%.

<u>Required:</u>

Estimate the value of WXY Ltd. using Free Cash Flows to Firm (FCFF) & WACC methodology.

The PVIF @ 15 % for the three years are as below:

Year	t_1	t_2	t_3
PVIF	0.8696	0.7561	0.6575

Question 3(B) (8 Marks)

A portfolio having following features:

Security	β	Random Error σ_{ei}	Weight
L	1.60	7	0.25
M	1.15	11	0.30
N	1.40	3	0.25
K	1.00	9	0.20

You are required to find out the risk of the portfolio if the standard deviation of the market index (σ_m) is 18%.

Question 4(A) (10 Marks)

Bank 'R' was established in 2005 and doing banking in India. The bank is facing DO OR DIE situation. There are problems of Gross NPA (Non-Performing Assets) at 40% & CAR/CRAR (Capital Adequacy Ratio/ Capital Risk Weight Asset Ratio) at 4%. The net worth of the bank is not good. Shares are not traded regularly. Last week, it was traded @₹ 8 per share.

RBI Audit suggested that bank has either to liquidate or to merge with other bank.

Bank 'P' is professionally managed bank with low gross NPA of 5%.It has Net NPA as 0% and CAR at 16%. Its share is quoted in the market @ ₹ 128 per share. The board of directors of bank 'P' has submitted a proposal to RBI for takeover of bank 'R' on the basis of share exchange ratio.
The Balance Sheet details of both the banks are as follows:

	Bank 'R' Amt. in ₹ lakhs	Bank 'P' Amt. in ₹ lakhs
Paid up share capital(`10)	140	500
Reserves & Surplus	70	5,500
Deposits	4,000	40,000
Other liabilities	890	2,500
Total Liabilities	5,100	48,500
Cash in hand & with RBI	400	2,500
Balance with other banks	—	2,000
Investments	1,100	15,000
Advances	3,500	27,000
Other Assets	100	2,000
Total Assets	5,100	48,500

It was decided to issue shares at Book Value of Bank 'P' to the shareholders of Bank 'R'.
All assets and liabilities are to be taken over at Book Value.
For the swap ratio, weights assigned to different parameters are as follows

Gross NPA	30%
CAR	20%
Market price	40%
Book value	10%

a) What is the swap ratio based on above weights?
b) How many shares are to be issued?
c) Prepare Balance Sheet after merger.
d) Calculate CAR & Gross NPA % of Bank 'P' after merger.

Question 4(B)

(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.

a) What should be 3 months FRA rate at 3 months forward?
b) 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 5(A)

(10 Marks)

Best of Luck Ltd. London will have to make a payment of $ 3,64,897 in six months' time. The company is considering the various choices it has in order to hedge its transaction exposure.

Exchange rates:	
Spot rate	$1.5617-1.5673
Six month forward rate	$1.5455-1.5609

Money Market rates:

	Borrow (%)	Invest (%)
US	6	4.5
UK	7	5.5

Foreign currency option prices (1 unit is £12,500):

Exercise price	Call option (March)	Put option (March)
$ 1.70	$ 0.037	$ 0.096

By making the appropriate calculations decide which of the following hedging alternatives is the most attractive to Best of Luck Ltd:

a) Forward market
b) Currency options.

Question 5(B) (6 Marks)

NP and Co. has imported goods for US $ 7,00,000. The amount is payable after three months. The company has also exported goods for US $ 4,50,000 and this amount is receivable in two months. For receivables amount a forward contract is already taken at ₹ 48.90.

The market rates for ₹ and Dollar are as under:

Spot	₹ 48.50/70
Two months	25/30 points
Three months	40/45 points

The company wants to cover the risk and it has two options as under:

a) To cover payables in the forward market and
b) To lag the receivables by one month and cover the risk only for the net amount. No interest for delaying the receivables is earned. Evaluate both the options if the cost of Rupee Funds is 12%. Which option is preferable?

Question 6(A) (10 Marks)

The finance manager of ABC Corporation is analyzing firms policy regarding computers which are now being leased on yearly basis on rental amounting to ₹ 1,00,000 per year. The computers can be bought for ₹ 5,00,000. The purchase would be financed by 16% and the loan is repayable in 4 equal annual installments.

On account of rapid technological progress in the computer industry, it is suggested that a 4-year economic life should be used instead of a 10-year physical life. It is estimated that the computers would be sold for ₹ 2,00,000 at the end of 4 years.

The company uses the straight line method of depreciation. Corporate tax rate is 35%.
(i) Whether the equipment be bought or be taken on lease?
(ii) Analyze the financial viability from the point of view of the lessor, assuming 14% cost of capital.
(iii) Determine the minimum lease rent at which lessor would break even.

Question 6(B) (6 Marks)

MP Ltd. issued a new series of bonds on January 1,2000. The bonds were sold at par (₹ 1,000), having a coupon rate 10% p.a. and mature on 31st December, 2015. Coupon payments are made semi-annually on June 30th and December 31st each year. Assume that you purchased an outstanding MP Ltd. Bond on 1st March, 2008 when the going interest rate was 12%.

<u>Required:</u>

a) What was the YTM of MP Ltd. Bonds as on January 1, 2000?
b) What amount you should pay to complete the transaction for purchasing the bond on 1st March 2008 ? Of that amount how much should be accrued interest and how much would represent bonds basic value.

Question 7(A)

(16 Marks)

Write short notes on any four of the following:

1) **Takeover by Reverse Bid**
2) **Distinguish between Open-ended and Close-ended Schemes.**
3) **Call/Notice Money**
4) **Financial restructuring**
5) **State any four assumptions of Black Scholes Model**