Paper-12: FINANCIAL MANAGEMENT & INTERNATIONAL FINANCE

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.
Answer Question No. 1 from Part A which is compulsory and any five questions from Part B.
Working notes should form a part of the answer
"Wherever necessary, suitable assumptions should be made and indicated in answers by the candidates"

PART A (25 Marks)

1. (a) In each, of the cases given below, one out of four answers is correct. Indicate the correct answer (= 1 mark) and give workings/reasons briefly in support of your answer (= 1 mark) **[2x7=14]**

(i) Dividend-Payers Ltd. has a stable income and stable dividend policy. The average annual dividend payout is ₹ 27 per share (Face Value = ₹100). You are required to find out Dividend payout in year 2, if the company were to have an expected market price of ₹160 per share at the existing cost of equity.
[The market price in year 1 is ₹ 150]

(A) ₹ 28.88
(B) ₹ 26.86
(C) ₹ 28.80
(D) ₹ 26.98

(ii) The ratio of current assets (₹ 3,00,000) to current liabilities (₹2,00,000) is 1.5 : 1. The accountant of this firm is interested in maintaining a current ratio of 2 : 1 by paying some part of current liabilities. Hence, the amount of current liabilities which must be paid for this purpose is

(A) ₹ 1,00,000
(B) ₹ 2,00,000
(C) ₹ 2,50,000
(D) ₹ 1,50,000

(iii) The interest rate in Germany is 11 per cent and the expected inflation rate is 5 per cent. The British interest rate is 9 per cent. How much is the expected inflation rate in Britain?

(A) 3.0%
(B) 3.1%
(C) 4.5%
(D) 2.9%

(iv) Annual usage of a firm is 3,60,000 units and 2 to 4 days are taken in receiving delivery of inventory after placing an order. Calculate Re-order level, if the reasonable expected stock out is 100 units per day. (Assume 1 year = 360 days)

(A) 3000 units
(B) 3300 units
(C) 2500 units
(D) 3500 units

(v) A project had an equity beta of 1.2 and was going to be financed by a combination of 30% debt and 70% equity (assume debt beta = 0). Hence, the required rate of return of the project is (assume R_f = 10% and R_m =18%)

(A) 16.27%
(B) 17.26%
(C) 16.72%
(D) 12.76%

(vi) M/s. Fine Dress Ltd. has sales of ₹800 lakhs and the variable costs amount to 62.5% of sales. The Company has fixed cost of ₹ 100 lakhs. If the sales of the Company increase by 5% from the existing level, what will be the per cent change in the EBIT?

(A) 7.5%
(B) 8.7%
(C) 7.9%
(D) 10.9%

(vii) Consider the following quotes.
Spot (Euro/Pound) = 1.6543/1.6557
Spot (Pound/NZ$) = 0.2786/0.2800
Calculate the % spread on the Euro/Pound Rate.

(A) 0.085%
(B) 0.0085%
(C) 0.85%
(D) 0.00085%

(b) Match the descriptions to the 'Four kinds of Float' with reference to management of cash:
[½×4=2 marks]

Descriptions:

(i) The time when a cheque is being processed by post office, Messanger service or other means of delivery.

(ii) The time required to sort, record and deposit the cheque after it has been received by the company.

(iii) The time from the deposit of cheque to the crediting of funds in the seller's account.

(iv) The time between the sale and the mailing of the invoice.

Four kinds of Float—Management of cash:

(A) Billing Float
(B) Banking processing Float
(C) Cheque processing Float
(D) Mailing Float

Note: Your answer may be of the form:

Description No…..Capital letter of the alternative indicating kind of float.

(c) State if each of the following sentences is T (= true) or F (= false): **[1 × 9=9]**

(i) Basic lease period refers to the period during which the lease is irrevocable.

(ii) LIBOR for treasury bill rate is the example of basis swaps.

(iii) Provision for taxation is an external source of financing.

(iv) TRIPS are the international agreement on intellectual property rights.

(v) The ROE of an unlevered firm is higher than the ROE of a levered firm, when the ROI is lower than the cost of debt.

(vi) If IRR is less than the firm's cost of capital, the project should be rejected.

(vii) There is no need for calculating separate cost for retained earnings, when cost of equity capital is calculated on the basis of the market value of equity shares.

(viii) In CAPM, systematic risk is the risk that cannot be eliminated by diversification, it being common to all firms.

(ix) Interest rate swap is an exchange of interest payments between two parties.

PART B (75 MARKS)

2. (a) The capital structure of Hindustan Traders Ltd. as on 31.3.2015 is as follows:

Equity Capital: 100 lakh equity shares of ₹10 each	₹10 crores
Reserves	2.00 crores
14% Debentures of ₹100 each	3.00 crores

For the year ended 31.3.2015 the company is to pay equity dividend at 20%. As the company is a market leader with good future, dividend is likely to grow by 5% every year. The equity shares are now traded at T80 per share on the stock exchange. Income-tax rate applicable to the company is 50%.

Required:

I. The current weighted cost of capital.

II. The company has plans to raise a further ₹ 5 crores by way of long-term loan at 16% interest. When this takes place the market value of the equity shares is expected to fall to ₹ 50 per share. Calculate the new weighted average cost of capital of the company. **[3+4]**

2. (b) List the problems in determination of cost of capital. **[3]**

2. (c) Following is the date on a capital project being evaluated by management of X Ltd.

Particulars	Project M
Annual Cost Saving	₹ 40,000
Useful Life	4 years
I.R.R.	15%
Profitability index (PI)	1.064
NPV	?
Cost of capital	?
Cost of project	?
Pay back	?
Salvage value	0

Find the missing values considering the following table of discount factor only.

Discount factor	15%	14%	13%	12%
1 year	0.869	0.877	0.855	0.893
2 years	0.756	0.769	0.783	0.797
3 years	0.658	0.675	0.693	0.712
4 years	0.572	0.592	0.613	0.636
	2.855	2.913	2.974	3.038

[1+1½+1½+1]

3 (a). Forward Planning Ltd. is considering whether to invest in a project which would entail immediate expenditure on capital equipment of ₹ 40,000. Expected sales from the project are as follows:

Probability	**Sales Volume (Units)**
0.10	2,000
0.25	6,000
0.40	8,000
0.15	10,000
0.10	14,000

Once sales are established at a certain volume in the first year, they will continue at that same volume in subsequent year. The unit selling prices will be ₹ 10, the unit variable cost ₹ 6 and the additional fixed costs will be ₹ 20,000 (all cash items). The project would have a life of 6 years after which the equipment would be sold for scrap which would fetch ₹ 3,000. You are required to find out:

I. The expected value of the NPV of the project

II. The expected volume of sales per annum required to justify the project.

The cost of capital of the company is 10%. Discount factor of ₹1 per annum for 6 years @ 10% is 4.355 and the discount factor of ₹ 1 at the end of the sixth year at 10% is 0.5645. Ignore taxation. **[5+5]**

3. (b) ABC Ltd. furnished you the following information:

Cost of Plant	₹10,00,000
Working Capital	₹5,00,000
Annual Sales Value	₹15,00,000
Annual Cash operating expenses	₹7,00,000
Project life	4 years
Tax rate	40%
Depreciation	SLM
Cost of Capital	10% p.a.
Terminal value	Plant 20% of Cost & Working Capital 100%

Compute Modified Internal Rate of Return or Terminal Rate of Return. **[5]**

4. (a) The sales turnover and profit during 2014 and 2015 are as follows.

	Sales (₹)	**Profit (₹)**
Year 2014	20,00,000	2,00,000
Year 2015	30,00,000	4,00,000

Calculate:

(i) Profit Volume Ratio
(ii) Sales required to earn a profit of ₹5,00,000
(iii) Profit when sales is ₹10,00,000 **[1+2+2]**

4. (b) The financial position of Swarup Ltd. On Jan. 1 and Dec. 31, 2014 is as follows:

Liabilities	**1st Jan(₹)**	**31st Dec(₹)**	**Assets**	**1st Jan(₹)**	**31st Dec(₹)**
Current Liabilities for goods	36,000	40,600	Cash	4,000	3,600
			Debtors	35,000	38,000
Loan from ABC Co		20,000	Stock	25,000	22,000
Loan from Bank	30,000	25,000	Land	20,000	30,000
Hire-purchase Vendor		20,000	Building	50,000	55,000
			Machinery	80,000	86,000
Capital	1,48,000	1,54,000	Delivery Van		25,000
	2,14,000	**2,59,600**		**2,14,000**	**2,59,600**

The delivery van was purchased in December, 2014 on hire-purchase basis; a payment of ₹5,000 was made immediately and the balance of amount is to be paid in 10 monthly installments of ₹2000 each together with an interest @ 15% p.a. During the year the partners withdrew ₹20,000 for personal expenditure. The provision for depreciation against machinery on 31-12-2013 was ₹27,000 and 31-12-2014 was ₹36,000. You are requested to prepare the Cash Flow Statement. **[10]**

5. (a) Write a note on GATT. **[3]**

5. (b) Aditya Birla Ltd, wants to assess its working capital requirement for the year 2015. For this purpose the company has gathered the following data.

ESTIMATED COST PER UNIT OF FININSHED PRODUCT

	₹
Raw Materials	90
Direct Labour	50
Manufacturing & administrative overhead (excluding depreciation)	40
Depreciation	20
Selling Cost	30
Total Cost	230

The product is subject to excise duty of 10% (levied on cost of production) and is sold at ₹300 per unit.

Additional Information:

(i) Budgeted level of activity is 1,80,000 units of output for 2015

(ii) Raw materials costs consists of the following:
Pig iron ₹65 per unit, Ferro alloys ₹15 per unit, and cast iron borings ₹10 per unit.

(iii) Raw materials are purchased from different suppliers having different credit periods:
Pig iron – 2 months, Ferro alloys – ½ month, and cast iron borings – 1 month

(iv) Product is in process for a period of ½ month. Production process requires full unit (100%) of pig iron and ferro alloys in the beginning of production; cast iron boring is required only to the extent of 50% in the beginning and the remaining is needed at a uniform rate during the process. Direct labour and other overheads accrue similarly at a uniform rate throughout production process.

(v) Past trends indicate that the pig iron is required to be stored for 2 months and other material for 1 month.

(vi) Finished Goods are in stock for a period of 1 month.

(vii) It is estimated that ¼ of the total sales are on cash basis and the remaining sales are on credit. Credit sales are collected over a period of 2 months.

(viii) Average time-lag in payment of all overheads is 1 month and labour is ½ month.

(ix) Desired cash balance to be maintained is ₹20,00,000.

You are required to ascertain the net working capital requirement of the company. **[12]**

6. (a) An Indian exporter has sold handicrafts items to an American business house. The exporter will be receiving US $100000 in 90 days. Premium for a dollar put option with a strike price of ₹ 48 and a 90 days settlement is ₹ 1. The exporter anticipates the spot rate after 90 days to be ₹ 46.50.

I. Should the exporter hedge its account receivable in the option market?

II. If the exporter is anticipating the spot rate to be ₹ 47.50 or ₹ 48.50 after 90 days, how would it effect the exporter's decision**?** **[3+2]**

6.(b) Interest rates for 3 months in US and Canada are as follows:

Can $ / US SOPT 1.235 – 1.240

3m Forward 1.255 – 1.260

Currency	Borrow	Invest
US $	4%	2.5%
Can $	4.5%	3.5%

Advise the currency in which borrowing and lending for 3 months needs to be done for a US company. Taken 3 month = 90/360 fraction of a year. **[6]**

6.(c) On 31-08-2011, the value of stock index was ₹ 2,200. The risk free rate of return has been 8% per annum. The dividend yield on this Stock Index is as under:

Month	Dividend Paid	Month	Dividend Paid
January	3%	July	3%
February	4%	August	4%
March	3%	September	3%
April	3%	October	3%
May	4%	November	4%
June	3%	December	3%

Assuming the interest is continuously compounded daily, find out the future price of contract deliverable on 31-12-2011.

Given $e^{0.01583} = 1.01593$ **[4]**

7.(a) Which position on the Index future gives a speculator a complete hedge against the following transactions.

I. The share of Right Ltd. is going to rise. He has a long position on the cash market of ₹ 50 lacs on the Right Ltd. The beta of the Right Ltd. is 1.25.

II. The share of Wrong Ltd. is going to depreciate. He has a short position on the cash market of ₹ 25 lacs on the Wrong Ltd. The beta of the Wring Ltd. is 0.9.

III. The share of Fair Ltd. is going to stagnate. He has a short position on the cash market of ₹ 20 lacs of Fair Ltd. The beta of the Fair Ltd. is 0.75. **[5]**

7.(b) Shoe Company sells to a wholesaler in Germany. The purchase price of the shipment is 50,000 deutsche marks with term of 90 days. Upon payment Shoe company will convert DM to $. The present spot rate for DM/$ is 1.71, whereas the 90 days forward rate is 1.70.

You are required to calculate and explain:

I. If Shoe Company were to hedge its foreign exchange risk, what would it do? What transactions are necessary?

II. Is the DM at a forward premium or at a discount?

III. Calculate the implied differential in interest rates between the two countries.

[Use Interest Rate Parity assumption] **[1+1+4]**

7 (c). Explain the need for setting-up a Depository in India. **[4]**

8. Write a short note on *any three* of the following: [5×3=15]

(i) Interest Rate Guarantees (IRG) w. r. t. International Finance;

(ii) Factors affecting value of an option relating to stock option value and capital budgeting

(iii) Zero working capital concept;

(iv) Greenfield Privatisation;

(v) Measures of Financial Performance.