

Roll No.

Total No. of Questions – 7

Total No. of Printed Pages – 14

Time Allowed – 3 Hours

Maximum Marks – 100

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Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his / her answers in Hindi will not be valued.

Question No. 1 is Compulsory.

Attempt any five out of the remaining six questions.

Wherever appropriate, suitable assumptions should be made and indicated in the answer by the candidate.

Working Notes should form part of the answer.

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1. (a) MNP Ltd. has declared and paid annual dividend of ₹ 4 per share. It is expected to grow @ 20% for the next two years and 10% thereafter. The required rate of return of equity investors is 15%. Compute the current price at which equity shares should sell.

Note : Present Value Interest Factor (PVIF) @ 15% :

For year 1 = 0.8696;

For year 2 = 0.7561

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- (b) ABC Chemicals is evaluating two alternative systems for waste disposal, System A and System B, which have lives of 6 years and 4 years respectively. The initial investment outlay and annual operating costs for the two systems are expected to be as follows :

	System A	System B
Initial Investment Outlay	₹ 5 million	₹ 4 million
Annual Operating Costs	₹ 1.5 million	₹ 1.6 million
Salvage value	₹ 1 million	₹ 0.5 million

If the hurdle rate is 15%, which system should ABC Chemicals choose ?

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

Year	1	2	3	4	5	6
PVIF	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323

- (c) AXY Ltd. is able to issue commercial paper of ₹ 50,00,000 every 4 months at a rate of 12.5% p.a. The cost of placement of commercial paper issue is ₹ 2,500 per issue. AXY Ltd. is required to maintain line of credit ₹ 1,50,000 in bank balance. The applicable income tax rate for AXY Ltd. is 30%. What is the cost of funds (after taxes) to AXY Ltd. for commercial paper issue ? The maturity of commercial paper is four months.

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- (d) The Bank sold Hong Kong Dollar 1,00,000 spot to its customer at ₹ 7.5681 and covered itself in London market on the same day, when the exchange rates were

US \$ 1 = HK \$ 8.4409 HK \$ 8.4500

Local inter-bank market rates for US \$ were :

Spot US \$ 1 = ₹ 62.7128 ₹ 62.9624

Calculate the cover rate and ascertain the profit or loss in the transaction.

Ignore brokerage.

2. (a) A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US \$ 500 million. The net working capital requirements are estimated at US \$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US \$ 80, its variable cost per unit being US \$ 40.

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The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project :

- (i) Variable operating cost will be US \$ 20 per unit of production;
- (ii) Additional cash fixed cost will be US \$ 30 million p.a. and project's share of allocated fixed cost will be US \$ 3 million p.a. based on principle of ability to share;
- (iii) Production capacity of the proposed project in India will be 5 million units;
- (iv) Expected useful life of the proposed plant is five years with no salvage value;
- (v) Existing working capital investment for production & sale of two million units through exports was US \$ 15 million;
- (vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;
- (vii) Applicable Corporate Income Tax rate is 35%, and
- (viii) Required rate of return for such project is 12%.

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Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below :

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

- (b) The equity shares of XYZ Ltd. are currently being traded at ₹ 24 per share in the market. XYZ Ltd. has total 10,00,000 equity shares outstanding in number; and promoters' equity holding in the company is 40%.

4+2
= 6

PQR Ltd. wishes to acquire XYZ Ltd. because of likely synergies. The estimated present value of these synergies is ₹ 80,00,000.

Further, PQR feels that management of XYZ Ltd. has been over paid. With better motivation, lower salaries and fewer perks for the top management, will lead to savings of ₹ 4,00,000 p.a. Top management with their families are promoters of XYZ Ltd. Present value of these savings would add ₹ 30,00,000 in value to the acquisition.

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Following additional information is available regarding PQR Ltd. :

Earnings per share	: ₹ 4
Total number of equity shares outstanding	: 15,00,000
Market price of equity share	: ₹ 40

Required :

- (i) What is the maximum price per equity share which PQR Ltd. can offer to pay for XYZ Ltd. ?
- (ii) What is the minimum price per equity share at which the management of XYZ Ltd. will be willing to offer their controlling interest ?

3. (a) Based on the following data, estimate the Net Asset Value (NAV) on per unit basis of a Regular Income Scheme of a Mutual Fund : 8

	₹ (in lakhs)
Listed Equity shares at cost (ex-dividend)	40.00
Cash in hand	2.76
Bonds & Debentures at cost	8.96
of these, Bonds not listed & not quoted	2.50
Other fixed interest securities at cost	9.75
Dividend accrued	1.95
Amount payable on shares	13.54
Expenditure accrued	1.76

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Current realizable value of fixed income securities of face value of ₹ 100 is ₹ 96.50.

Number of Units (₹ 10 face value each) : 275000

All the listed equity shares were purchased at a time when market portfolio index was 12,500. On NAV date, the market portfolio index is at 19,975.

There has been a diminution of 15% in unlisted bonds and debentures valuation.

Listed bonds and debentures carry a market value of ₹ 7.5 lakhs, on NAV date.

Operating expenses paid during the year amounted to ₹ 2.24 lakhs.

(b) JKL Ltd., an Indian company has an export exposure of JPY ⁵⁺³₌₈ 10,000,000 payable August 31, 2014. Japanese Yen (JPY) is not directly quoted against Indian Rupee.

The current spot rates are :

INR/US \$ = ₹ 62.22

JPY/US \$ = JPY 102.34

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It is estimated that Japanese Yen will depreciate to 124 level and Indian Rupee to depreciate against US \$ to ₹ 65.

Forward rates for August 2014 are

INR/US \$ = ₹ 66.50

JPY/US \$ = JPY 110.35

Required :

- (i) Calculate the expected loss, if the hedging is not done. How the position will change, if the firm takes forward cover ?
- (ii) If the spot rates on August 31, 2014 are :

INR/US \$ = ₹ 66.25

JPY/US \$ = JPY 110.85

Is the decision to take forward cover justified ?

4. (a) RST Ltd.'s current financial year's income statement reported its net income as ₹ 25,00,000. The applicable corporate income tax rate is 30%.

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=8

Following is the capital structure of RST Ltd. at the end of current financial year :

Debt (Coupon rate = 11%)	₹ 40 lakhs
Equity (Share Capital + Reserves & Surplus)	₹ 125 lakhs
Invested Capital	₹ 165 lakhs

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Following data is given to estimate cost of equity capital :

Beta of RST Ltd.	1.36
Risk-free rate i.e. current yield on Govt. bonds	8.5%
Average market risk premium (i.e. excess of return on market portfolio over risk-free rate)	9%

Required :

- (i) Estimate Weighted Average Cost of Capital (WACC) of RST Ltd.; and
 - (ii) Estimate Economic Value Added (EVA) of RST Ltd.
- (b) 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.

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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

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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%.

Required :

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

5. (a) The credit sales and receivables of DEF Ltd. at the end of year are estimated at ₹ 561 lakhs and ₹ 69 lakhs respectively. 8

The average variable overdraft interest rate is 5% p.a.

DEF Ltd. is considering a factoring proposal for its receivables on a non-recourse basis at an annual fee of 1.25% of credit sales.

As a result, DEF Ltd. will save ₹ 1.5 lakhs p.a. in administrative cost and ₹ 5.25 lakhs p.a. as bad debts.

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- ✶ The factor will maintain a receivables collection period of 30 days and will provide 80% of receivables as advance at an interest rate of 7% p.a.
✶ You may take 365 days in a year for the purpose of calculation of receivables.

Required :

Evaluate the viability of factoring proposal.

- (b) On January 28, 2013 an importer customer requested a Bank to remit Singapore Dollar (SGD) 2,500,000 under an irrevocable Letter of Credit (LC). However, due to unavoidable factors, the Bank could effect the remittances only on February 4, 2013. The inter-bank market rates were as follows :

	January 28, 2013	February 4, 2013
US \$ 1 =	₹ 45.85/45.90	₹ 45.91/45.97
GBP £ 1 =	US \$ 1.7840/1.7850	US \$ 1.7765/1.7775
GBP £ 1 =	SGD 3.1575/3.1590	SGD 3.1380/3.1390

The Bank wishes to retain an exchange margin of 0.125%.

Required :

How much does the customer stand to gain or lose due to the delay ?

(Note : Calculate the rate in multiples of 0.0001)

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6. (a) GHI Ltd., AAA rated company has issued fully convertible bonds on the following terms, a year ago :

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1+1+1
= 8

Face value of bond	: ₹ 1000
Coupon (interest rate)	: 8.5%
Time to Maturity (remaining)	: 3 years
Interest Payment	: Annual, at the end of year
Principal Repayment	: At the end of bond maturity
Conversion ratio (Number of shares per bond)	: 25
Current market price per share	: ₹ 45
Market price of convertible bond	: ₹ 1175

AAA rated company can issue plain vanilla bonds without conversion option at an interest rate of 9.5%.

Required : Calculate as of today :

- Straight Value of bond.
- Conversion Value of the bond.
- Conversion Premium.

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(iv) Percentage of downside risk.

(v) Conversion Parity Price.

t	1	2	3
$PVIF_{0.095, t}$	0.9132	0.8340	0.7617

- (b) GKL Ltd. is considering installment sale of LCD TV as a sales promotion strategy. 4

In a deal of LCD TV, with selling price of ₹ 50,000, a customer can purchase it for cash down payment of ₹ 10,000 and balance amount by adopting any of the following options :

Tenure of Monthly Installments	Equated Monthly Installment
12	₹ 3800
24	₹ 2140

Required :

Estimate the flat and effective rate of interest for each alternative.

$$PVIFA_{2.05\%, 12} = 10.5429$$

$$PVIFA_{2.10\%, 12} = 10.5107$$

$$PVIFA_{2.10\%, 24} = 18.7014$$

$$PVIFA_{2.12\%, 24} = 18.6593$$

- (c) Explain in brief the contents of a Project Report. 4

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7. Write short notes on any **four** of the following :

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- (a) Traditional & Walter Approach to Dividend Policy
 - (b) Factors affecting value of an option
 - (c) Forward Rate Agreements
 - (d) American Depository Receipts
 - (e) Balancing Financial Goals vis-a-vis Sustainable Growth
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