Roll No. [redacted]

Total No. of Questions – **6**

Total No. of Printed Pages – **11**

Time Allowed – **3** Hours

Maximum Marks – **100**

JLB

Answers to questions are to be given only in English except in 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.

Candidates are also required to answer any **four** questions from the remaining **five** questions.

Working notes should form part of the respective answer.

Marks

1. (a) A US based company is planning to set up a subsidiary company in India (where so far it was exporting) in view of growing demand for its product and competition from other US based companies. The initial project cost consisting of plant and machinery including installation is estimated to be US$ 490 million. The net working capital requirements are estimated at US$ 60 million. The company follows straight line method of depreciation. Currently, the company is exporting two million units every year at a unit price of US$ 90, its variable cost per unit being US$ 50. **8**

P.M.

The CFO of the Company has estimated the following operating cost and other data in respect of proposed project :

Marks

(i) Variable operating cost will be US \$ 30 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) Expected useful life of the proposed plant is five years with no salvage value;

(iv) Production capacity of the proposed project in India will be 5 million units;

(v) Existing working capital investment for production and sale of two million units through exports was US \$ 25 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units, provided the company does not set up subsidiary company in India, in view of the presence of competing other US based companies 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%.

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 of the proposed project in India and give your advice. Present Value Interest Factors (PVIF) @ 12% for five years is as below :

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

Marks

(b) Following information is available for consideration : 8

PM

BSE Index	25,000
Value of Portfolio	₹ 50,50,000
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 4 months maturity is used to hedge the value of portfolio over next 3 months. One future contract is for delivery of 50 times the index.

Based on the above information, calculate :

(i) Price of future contract.

(ii) The gain on short futures positon if index turns out to be 22,500 in three months.

(c) State the strategy at different hierarchy levels. Corp Bu Op 4

2. (a) Mr. X is having a portfolio of shares worth ₹ 170 lakhs at current price and cash ₹ 30 lakhs. The beta of share portfolio is 1.6. After 3 months the price of shares dropped by 3.2%. 8

P.M.

Determine :

(i) Current portfolio beta.

(ii) Portfolio beta after 3 months if Mr. X on current date goes for long positon on ₹ 200 lakhs Nifty futures.

Marks

(b) P Ltd., a dealer quotes 'All-in-cost' for a generic swap at 6% against six months LIBOR flat. If the Notional principal amount of swap is ₹ 8,00,000 : 8

P.M.

(i) Calculate semi-annual fixed payment.

(ii) Find the first floating rate payment for (i) above if the six month period from the effective date of swap to the settlement date comprises 181 days and that the corresponding LIBOR was 5% on the effective date of swap. (Consider up to three decimal places).

(iii) In question number (ii) above, if the settlement is on 'Net' basis, how much the fixed rate payer would pay to the floating rate payer ?

Note : Generic swap is based on 30/360 days basis.

Simple (c) Describe the main features of Value-at-Risk (VAR). TH SM Riskm (c) Pro 4

3. (a) Following financial data are available of RK Ltd., for the year ended on 31-03-2020 : 8

P.M.

Particulars	**₹ (in Million)**
8% Debentures	125
10% Bonds	50
Equity Shares of ₹ 10 each	100

Reserves and Surplus	300
Total Assets	600
Assets Turnover Ratio	1.1
Effective Interest Rate	8%
Effective tax rate	40%
Operating margin	10%
Dividend pay-out ratio	16.67%
Required rate of return by investors	15%
Current market price of share	₹ 14

You are required to :

(i) Prepare the income statement of RK Ltd., for the year ended on 31-03-2020.

(ii) Calculate the sustainable growth rate.

(iii) Find out the fair price of the company's share using dividend discount model.

(iv) Advice whether the share is under-priced or overpriced.

Marks

XP Pharma Ltd., has acquired an export order for ₹ 10 million for formulations to a European company. The Company has also planned to import bulk drugs worth ₹ 5 million from a company in UK. The proceeds of exports will be realized in 3 months from now and the payments for imports will be due after 6 months from now. The invoicing of these exports and imports can be done in any currency i.e. Dollar, Euro or Pounds sterling at company's choice. The following market quotes are available. **8**

	Spot Rate	Annualised Premium
₹ /$	67.10/67.20	$ – 7%
₹ /Euro	63.15/63.20	Euro – 6%
₹ /Pound	88.65/88.75	Pound – 5%

Advice XP Pharma Ltd. about invoicing in which currency.

(Calculation should be upto three decimal places).

(c) Explain Indicative Risk Matrix of each stages of funding for Venture Capital Financing. **4**

4. (a) Mr. K has invested in three Mutual fund schemes as per details below : **8**

	Scheme A	Scheme B	Scheme C
Date of Investment	01-12-2018	01-01-2019	01-03-2019
Amount of Investment	₹ 5,00,000	₹ 10,00,000	₹ 5,00,000
Net Asset Value at entry date	₹ 10.50	₹ 10.00	₹ 10.00
Dividend received up to 31-03-2019	₹ 9,500	₹ 15,000	₹ 5,000
NAV as at 31-3-2019	₹ 10.40	₹ 10.10	₹ 9.80

You are required to calculate the effective yield on per annum basis in respect of each of the three schemes to Mr. K upto 31-03-2019, taking the year consisting of 365 days.

Provide a brief comment on the course of action he should take for future period.

(Calculation should be upto three decimal places)

(b) The data given below relates to convertible bond of Hi-Fi Ltd. : 8

P.M.

Face value	₹ 2,500
No. of shares per bond	20
Coupon rate	12%
Market price per share	₹ 120
Market price of convertible bond	₹ 2,650
Straight value of bond	₹ 2,350

You are required to calculate the following :

(i) Conversion value of bond. SV - CV

(ii) The percentage of downside risk. SV - CV

(iii) The conversion premium CV - MP

(iv) Conversion parity price of the stock and also interpret the results.

Marks

(c) Explain Pitch Presentation. List the methods for approaching a Pitch Presentation. 4

5. (a) Excellent Ltd., reported a profit of ₹ 154 lakhs after 30% tax for the financial year 2019-20. An analysis of the accounts revealed that there is an extraordinary loss of ₹ 20 lakhs and the income included extraordinary items of ₹ 16 lakhs. The existing operations, except for the extraordinary items, are expected to continue in the future. In addition, the results of the launch of a new product are expected to be as follows : 8

P.M.

	₹ in lakhs
Sales	140
Material costs	40
Labour costs	24
Fixed costs	20

EVA

You are required to :

(i) Calculate the value of the business, given that the capitalization rate is 14%.

(ii) Determine the market price per equity share, with Excellent Ltd.'s share capital being comprised of 2,00,000 at 13% preference shares of ₹ 100 each and 100,00,000 equity shares of ₹ 10 each and the P/E ratio being 12 times. (Ignoring Corporate Dividend Tax).

Marks

(b) A company has a choice of investments between several different equity oriented mutual funds. The company has an amount of ₹ 100 lakhs to invest. The details of the mutual funds are as follows : 8

P.M.

Mutual Funds	A	B	C	D	E
Beta	1.5	1.0	0.8	2.0	0.7

PLAN I

If the company invests 20% of its investments in each of the first two mutual funds (A and B) and balance in equal amounts in the mutual funds C, D and E, what is the beta of the portfolio ?

PLAN II

If the company invests 15% of its investment in C, 15% in A, 10% in E and the balance in equal amounts in the other two mutual funds, what is the beta of the portfolio ?

If the expected return of market portfolio is 12% at a beta factor of 1.0, what will be the expected return on the portfolio in both the plans given above ?

(c) State the problems faced in growth of securitization instruments in Indian context. 4

Marks

6. (a) Long Ltd., is planning to acquire Tall Ltd., with the following data available for both the companies : 8

	Long Ltd.	Tall Ltd.
Expected EPS	₹ 12	₹ 5
Expected DPS	₹ 10	₹ 3
No. of Shares	30,00,000	18,00,000
Current Market Price of Share	₹ 180	₹ 50

As per an estimate Tall Ltd., is expected to have steady growth of earnings and dividends to the tune of 6% per annum. However, under the new management the growth rate is likely to be enhanced to 8% per annum without additional investment.

You are required to :

(i) Calculate the net cost of acquisition by Long Ltd., if ₹ 60 is paid for each share of Tall Ltd.

(ii) If the agreed exchange ratio is one share of Long Ltd., for every three shares of Tall Ltd., in lieu of the cash acquisition as per (i) above, what will be the net cost of acquisition ?

(iii) Calculate Gain from acquisition.

Marks

(b) SK Ltd., has a surplus cash of ₹ 150 lakhs and wants to distribute 30% of it to the shareholders. The company decided to buy-back shares. The company estimates that its share price after the buy-back is likely to be 15% above the buy-back price. The number of shares outstanding at present is 15 lakhs and the current EPS is ₹ 4. 8

P.M.

You are required to determine :

(i) The price at which the shares can be bought-back, if the market capitalization of the company should be ₹ 400 lakhs after buy-back.

(ii) The number of shares that can be bought-back, and

(iii) The impact of this buy-back on the EPS, assuming that the net income remains the same.

(c) Define Interest Rate Swaption. State its principal features. 4

OR

Describe Tracking error. List the reasons for it.
