

Answers to June 2012 Exam Questions CS Professional-II Financial, Treasury & Forex Management

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All Theories Questions are from SUMIT KUMAR Book

1. Comment on any four of the following :
 - (i) NPV decision rule does not hold true in the situation of capital rationing.
 - (ii) Risk is always associated with receivables.
 - (iii) The strategy for effective cash management in any firm has a core component of operating cycle.
 - (iv) Treasury function is supplemental and complementary to the finance function in a firm.
 - (v) Capital Asset Pricing Model (CAPM) is a tool to work out cost of equity. **(5 Marks each)**
- Ans. 1(i)** The situation where the available funds of the firm are limited is known as capital rationing. The standard NPV rule no longer holds true in capital rationing. In case where, the capital becomes scarce the firm should use IRR and profitability index for selection of the project. Capital rationing is of two types: hard capital rationing and soft capital rationing. Hard capital rationing is mainly due to imperfections in capital markets which can be attributed to non-availability of market information, investor attitude, etc. Soft capital rationing is due to self imposed restrictions imposed by management like not to raise additional debt or laying down a specified minimum rate of return on each project. In single period rationing condition, the simple NPV decision rule is replaced by Feasibility set approach or Benefit cost analysis and in multi-period capital rationing the optimal solution is obtained through linear programming.
- Ans. 1(ii)** Risk is always associated with receivables because following costs are incurred against receivables.
 1. **Capital Costs:** Maintenance of accounts receivable results in blocking of the firm's financial resources in them. This is because there is a time lag between the sale of goods to customers and the payments by them. The firm has, therefore, to arrange for additional funds to meet its own obligations, such as payment to employees, suppliers of raw materials, etc., while awaiting for payments from its customers. Additional funds may either be raised from outside or out of profits retained in the business. In both the cases, the firm incurs a cost. In the former case, the firm has to pay interest to the outsider while in the latter case, there is an opportunity cost to the firm, i.e., the money which the firm could have earned otherwise by investing the funds elsewhere.
 2. **Administrative costs:** the firm has to incur additional administrative costs for maintaining accounts receivable in the form of salaries to the staff kept for maintaining accounting records relating to customers, cost of conducting investigation regarding potential credit customers to determine their creditworthiness, etc.
 3. **Collection costs:** The firm has to incur costs for collecting the payments from its credit customers. Sometimes, additional steps may have to be taken to recover money from defaulting customers.
 4. **Defaulting costs:** Sometimes after making all serious efforts to collect money from defaulting customers, the firm may not be able to recover the over dues because of the inability of the customers. Such debts are treated as bad debts and have to be written off since they cannot be realized.
- Ans. 1(iii)** Managing cash is an integral part of a company's overall operations. Cash is required to sustain the operating cycle, and cash managers ensure that a company's operating cycle is adequately financed. Therefore, the objectives of cash management are closely related to the management of the operating cycle. The primary objective of cash management is to utilize cash as efficiently as possible in a manner consistent with a company's overall strategic objectives. The cash flow and operating cycles are similar. The cash manager focuses on the timing of the cash flows related to accounts payable, accounts receivable and inventory turnover. Operations managers concentrate on the timely availability of materials and resources and on sales volumes, relying on the cash manager to ensure adequate liquidity to support operations. Cash forecasting is based on understanding both the Operating and the Cash Flow cycles.

Ans. 1(iv) Financial mgt. Is to establish, coordinate and administer, an adequate plan for control of operations and Treasury mgt. Is to execute the plan of finance function.

The finance function of a firm would fix the limit for investment in short term instruments for a firm and it is the treasury function that would decide which particular instruments are to be invested in within the overall limit having regard to safety, liquidity and profitability.

(v) The Capital Asset Pricing Model (CAPM) is used to determine theoretically appropriate price of an asset, such as security. The model gives a required rate of return as a function of systematic risk. The price given by CAPM is a long term equilibrium price of an asset. The expected rate of return can be calculated as:

CAPM establishes a linear relationship between the required rate of return of a security and its beta. In fact, it actually describes the required return for a given level of risk. The rate of return required by the investors in the form of equity investment can be worked out with the help of CAPM.

$$\begin{aligned} \text{Expected rate of return} &= \text{Risk free rate of return} + \text{Risk premium} \\ &= R_f + b_i(R_m - R_f) \end{aligned}$$

Where,

R_i = Expected or required rate of return on security

R_f = Risk-free rate of return

b_i = Beta co-efficient of a security

R_m = Return on market portfolio

The price of a share depending upon dividend can be computed as follows:-

$$P_0 = \frac{D_1}{k_e - G} \quad D_1 = \text{Dividend expected in next year}$$

$$K_e = R_i ; \quad G = \text{Growth rate in dividend}$$

2. (a) **[Q. 14 of SUMIT KUMAR Sir book-II; page- 140; Portfolio Management]** During a 5 year period, the relevant results for the aggregate market are that the risk-free rate(r_f) is 8% and the return on market (r_m) is 14%. For that period, the results of five portfolio managers are as follows :

Portfolio Manager	Actual Average Return(%)	Beta(b)
A	13	0.80
B	14	1.05
C	17	1.25
D	13	0.90
E	15	0.95

Using CAPM model, you are required to :

- Calculate the expected rate of return for each portfolio manager and compare the actual returns with the expected returns; and
- Based upon your calculations, select the portfolio manager with the best performance.

(6 Marks)

(b) [Q. 140 of SUMIT KUMAR Sir book-II; page- 44; Forex] You are given the following information:

Spot Rate (1 US \$)	= ₹ 48.0123
180 days forward rate (1 US \$)	= ₹ 48.8190
Annualised interest rate for 6 months (R_s)	= 12%
Annualised interest rate for 6 months (US \$)	= 8%

Is there any arbitrage possibility? If yes, how can an arbitrageur take advantage of the situation if he is willing to borrow ₹40,00,000 or US \$83,312 ?

(4 Marks)

(c) [Q. 2 of SUMIT KUMAR Sir book-I; page- 69; Leverage] The following information is related Sunrise Ltd. :

R_s

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Sales	4,00,000
Less : Variable Expenses 35%	<u>1,40,000</u>
Contribution	2,60,000
Less : Fixed expenses	<u>1,80,000</u>
EBIT	80,000
Less : Interest	<u>10,000</u>
Taxable Income	70,000

You are required to submit the following to management of the company:

- What percentage will taxable income increase, if the sales increase by 6%? Use combined leverage. **(2 Marks)**
 - What percentage will EBIT increase, if there is a 10% increase in sales? Use operating leverage. **(1 Mark)**
 - What percentage will taxable income increase, if EBIT increase by 6%? Use final leverage. **(1 Mark)**
- (d) Priyanka Ltd. Requires 2,000 units of an item annually. The cost of the item per unit is ₹ 20 and ordering cost is ₹50 per order. If the carrying cost is 25% of the cost of Item, find the optimum lot size.
If the company purchases in lots of 1,000 or more units of the item, it gets a rebate of 3%. Should the company accept offer? **(6 Marks)**

Ans. 2(a/i)

Portfolio Manager	Actual Average Return %	Beta (β)	Expected Return as per CAPM = $R_f + \beta(R_m - R_f)$	Performance
A	13%	0.80	$8\% + 0.80(14\% - 8\%) = 12.8$	+ ve performance
B	14%	1.05	$8\% + 1.05(14\% - 8\%) = 14.3$	- ve performance
C	17%	1.25	$8\% + 1.25(14\% - 8\%) = 15.5$	+ ve performance
D	13%	0.90	$8\% + 0.90(14\% - 8\%) = 13.4$	- ve performance
D	15%	0.95	$8\% + 0.95(14\% - 8\%) = 13.7$	+ ve performance

Ans. 2(a/ii)

Out of five portfolio manager, portfolio manager A, C and E have positive performance because actual average return is higher than return as per CAPM but portfolio manager C has best performance.

Ans. 2(b)

Interest rate differentia = $12\% - 8\% = 4\%$, it means ` should be depreciated against \$ by 4%

$$\text{Calculation of discount of ₹ Using spot rate and forward rate} = \frac{SR - FR}{FR} \times 100$$

$$= \frac{48.0123 - 48.8190}{48.8190} \times 100 \times \frac{360}{180} = 3.30\% \text{ p.a.}$$

As per given spot rate and forward rate ` has been depreciated 3.30% p.a. which is lower than interest rate differentia 4%p.a. Hence interest arbitrage is possible, for it investor should borrow \$ @ 8% from USA and invest @ 12% in India for 6 months.

$$\text{Amount required to pay after 6 months to USA Bank } \$ 83,312 \left(1 + \frac{0.08}{12} \times 6 \right) = \$ 86,644.48$$

Amount received due to investment in India in 6 months

$$₹ 40,00,000 \left(1 + \frac{0.12}{12} \times 6 \right) = ₹ 42,40,000$$

Equivalent \$ for ₹ 42,40,000 at 6 months FR ₹ 48.8190 = \$ 1

$$₹ 42,40,000 = \frac{42,40,000}{48.8190} = \$ 86,851.43$$

Arbitrage gain = \$ 86,851.43 - \$ 86,644.48 = \$ 206.95

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Ans. 2(c/i)

	Existing Sale	Sale ↑ by 6%
Sales	Rs 4,00,000	Rs 4,24,000
Less Variable Expenses	Rs 1,40,000	Rs 1,48,400
Contribution	Rs 2,60,000	Rs 2,75,600
Less Fixed Costs	Rs 1,80,000	Rs 1,80,000
EBIT	Rs 80,000	Rs 95,600
Less Interest	Rs 10,000	Rs 10,000
EBIT	Rs 70,000	Rs 85,600

$$\% \text{ increased in EBIT} = \frac{15,600}{70,000} \times 100 = 22.285\%$$

Ans. 2(c/ii)

$$\text{Degree of Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{2,60,000}{80,000} = 3.25 \text{ times}$$

It means for every 1% decrease sale EBIT will be increased by 3.25% ; It sales increased by 10% EBIT will increased by $10 \times 3.25\% = 32.5\%$

Ans. 2(c/iii)

	Existing Sale	EBIT ↑ by 6%
EBIT	Rs 80,000	Rs 84,800
Less Interest	Rs 10,000	Rs 10,000
EBIT	Rs 70,000	Rs 74,800

$$\% \text{ increased in Taxable Income} = \frac{4,800}{70,000} \times 100 = 6.857\%$$

$\text{DOF} = \frac{\text{EBIT}}{\text{EBT}} = \frac{80,000}{70,000} = 1.14285$, it means for every 1% increased in EBIT taxable income will increased by 1.14285%, For 6% increased EBIT taxable income will increased by $6 \times 1.14285 = 6.857\%$.

Ans. 2(d)

A = Annual Requirements = 2000 units

Cost per unit = Rs 20

Ordering Cost per order = Rs 50

Carrying Cost = 25% of Rs 20 = Rs 5

$$\text{EOQ} = \text{Optimum Lot size} = \sqrt{\frac{2AO}{C}} = \sqrt{\frac{2 \times 2000 \times 50}{5}} = 200 \text{ units}$$

Evaluating of discount offer & EOQ

Order Size	EOQ 200	Discount 1000
No. Of order	$\frac{2000}{200} = 10$	$\frac{2000}{1000} = 2$
Cost per unit of RM	Rs 20	Rs 20 (1 ÷ 0.03) = Rs 19.4
Carrying Cost	25% of 20 = 5	20% of 19.4 = 4.85
Average in inventory	$\frac{200}{2} = 100$	$\frac{1000}{2} = 500$
Material Cost	$2000 \times 20 = 40,000$	$2000 \times 19.4 = 38,800$
Ordering Cost	$10 \times 50 = 500$	$2 \times 50 = 100$
Carrying Cost	$100 \times 5 = 500$	$500 \times 4.85 = 2435$
	41,000	41,325

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EOQ is better option, having lower cost than discount.

3. (a) **[Q. 20 of SUMIT KUMAR Sir book-I; page- 118; Financial Decision]** Maxwell Ltd. is operating in electronic equipments development and its sales and earnings before interest and taxes for the current year were ₹70,00,000 and ₹18,00,000 respectively. During the year, an interest expense was ₹16,000 and preference dividend was ₹20,000. These fixed charges are expected to continue for next year. The company is thinking to diversify its operations which will require ₹7,00,000 and is expected to increase EBIT by ₹4,00,000 to ₹22,00,000. The company has the following three financing alternatives under its consideration:
- Alternative-1: Issue 10,000 equity shares at ₹70 per share. The company has currently 80,000 shares of common stock outstanding.
- Alternative -2: Issue ₹7,00,000, 15 years 15% debentures. Sinking fund payments on these debentures will commence after 15 years.
- Alternative-3: Issue ₹7,00,000, 14% preference shares.
- You are required to calculate i
- The EPS at expected earnings before interest and taxes level of ₹22,00,000 for each financing alternative.
 - The equivalency level of earnings before interest and taxes between the debt and common stock alternatives.
 - The equivalency level of earnings before interest and taxes between the preference shares and common stock alternatives.
- Assume 30% income-tax rate. **(12 Marks)**
- (b) **[Q. 87 of SUMIT KUMAR Sir book-II; page- 225; Derivative]** Identify the profit or loss (ignoring dealing cost and interest) in each of the following case:
- A put option with exercise price of ₹250 is bought for premium of ₹42. The price of underlying share is ₹189 at the expiry date.
 - A put option with exercise price of ₹300 is written for premium of ₹57. The price of the underlying share is ₹314 at expiry date. **(4 Marks)**
- (c) **[Q. 16 of SUMIT KUMAR Sir book-III; page- 106; Credit Policy]** Sawan Ltd. currently has sales of ₹30,00,000 with an average collection period of two months. At present, no discounts are offered to the customers. The management of the company is thinking to allow discount of 2% on cash sales which results as under :
- The average collection period would reduce to one month.
 - 50% of customers would take advantages of 2% discount.
- The company would normally require a 25% return on its investment. Advise the management whether to extend the discount on cash sales. **(4 Marks)**

Ans. 3(a)

Sales = ₹70,00,000, EBIT = ₹18,00,000

Interest Expenses ₹16,000; Preference dividend = ₹20,000

Table showing three Alternative

	1 st Alternative	2 nd Alternative	3 rd Alternative
Existing Equity Shares	80,000	80,000	80,000
Interest	16,000	16,000	16,000
Preference Dividend	20,000	20,000	20,000
New Capital			
10000 Equity @ 70	7,00,000		
15% Sinking Fund debt		7,00,000	
14% Preference share			7,00,000

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Ans. 3(a/i)

Calculation of EPS

	1 st Alternative	2 nd Alternative	3 rd Alternative
EBIT	22,00,000	22,00,000	22,00,000
Less: Existing interest	16,000	16,000	16,000
New Interest	---	1,05,000	--
EBIT	21,84,000	20,79,000	21,84,000
Less: Tax 30%	6,55,200	6,23,700	6,55,200
Earnings After Tax (EAT)	15,28,800	14,55,300	15,28,800
Less Pref. Dividend			
Existing	20,000	20,000	20,000
New	---	---	98,000
Less Amount deposit to sinking fund 700000/15	---	46,666.67	---
Earning for equity	15,08,800	13,88,633.33	14,10,800
EPS	$\frac{15,08,800}{90,000} = 16.76$	$\frac{13,88,633.33}{80,000} = 17.36$	$\frac{14,10,800}{80,000} = 17.63$

Ans. 3(a/ii)

Calculation of indifference level of EBIT between debt and common stock

EPS under debt finance = EPS under equity finance

$$\frac{(\text{EBIT} - \text{Interest})(1 - \text{Tax rate}) - \text{pref. div.}}{\text{No. of Equity}} = \frac{(\text{EBIT} - \text{Interest})(1 - \text{Tax rate}) - \text{pref. div.}}{\text{No. of Equity share}}$$

Or

$$\frac{(\text{EBIT} - 121000)(1 - 0.30) - 20000}{80000} = \frac{(\text{EBIT} - 16000)(1 - 0.30) - 20000}{80000 + 10000}$$

$$\frac{0.7X - 84700 - 20000}{80000} = \frac{(0.7X - 11200 - 20000)}{90000}$$

$$\text{Or } (0.7X - 104700) \times 9 = (0.7X - 31200) \times 8$$

$$\text{Or } 6.3X - 9,42,300 = 5.6X - 2,49,600$$

$$\text{Or } 6.3X - 5.6X = 9,42,300 - 2,49,600 = 6,92,700$$

$$X = \text{indifference level of EBIT} = \frac{6,92,700}{0.70} = ₹ 9,89,571.428$$

Ans. 3(a/iii)

Calculation of indifference level of EBIT bet preference share & Common stock

EPS under preference finance = EPS under equity finance

$$\frac{(\text{EBIT} - 16000)(1 - 0.3) - 118000}{80000} = \frac{(\text{EBIT} - 16000)(1 - 0.30) - 20000}{80000 + 10000}$$

EBIT = x

$$\frac{(X - 16000) \times 0.7 - 118000}{80000} = \frac{(X - 16000) \times 0.70 - 20000}{90000}$$

$$\frac{0.7X - 11200 - 118000}{8} = \frac{0.7X - 11200 - 20000}{9}$$

$$\text{Or } (0.7X - 129200) \times 9 = (0.7X - 31200) \times 8$$

$$\text{Or } 6.3X - 11,62,800 = 5.6X - 2,49,600$$

$$\text{Or } 0.7X - 11,62,800 - 2,49,600 = 9,13,200$$

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Or $X = \frac{9,13,200}{0.7} = 13,04,571$

Ans. 3(b)

Profit/Loss of holder & writer

	Cost I	Cost II
Party Action	Put option buyer Right to sale at E.P. = 250	Put option seller obligation to buy at E.P. = 300
E.P.	250	300
M.P	189	314
Action	Exercise	Lapse
Gross profit	61	14
Premium paid	42	0
Net pay off	19	14

Ans. 3(c)

Evaluation of Discount offer

	Existing Policy	Proposed Policy
Credit Sales	30,00,000	30,00,000
Average collection personal	2 months	1 month
Discount		2%
Cash discount customer	-----	50% of 30,00,000 = 15,00,000
Average debtors	$\frac{30,00,000}{12} \times 2 = 5,00,000$	$\frac{30,00,000}{12} \times 1 = 2,50,000$
Expenditure due to credit sale		
Opportunity cost @ 25%	25% of 5,00,000 = 1,25,000	25% of 2,50,000 = 62,000
Discount	-----	2% of 15,00,000 = 30,000
Total	1,25,000	92,000

Discount offer is better discount.

All Theories Questions are from SUMIT KUMAR Book

4. Distinguish between any four of the following :

- Financial distress and insolvency
- Open ended mutual funds and Close ended mutual funds
- Accounting exposure and economic exposure
- Semi-strong form of efficient market hypothesis and strong form of efficient market hypothesis
- Factoring and Bill Discounting

(5 Marks each)

Ans. 4(i)

Financial Distress	Insolvency
It is a condition where the obligations of the firm are met with great difficulty.	It is a condition where the obligations of the firm are not met.
It is a short term.	It is forever.
Firm can recover from this situation.	Firm has to close down in this situation.
It is majorly caused due to external factors.	It is caused due to both external and internal factors.
Financial distress slowly leads to bankruptcy.	Insolvency is another form of bankruptcy.
This is a cause.	This is the effect.

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Ans. 4(ii)

Difference between open ended and close ended investment schemes of mutual funds are:

OPEN-ENDED SCHEMES	CLOSE-ENDED SCHEMES
1. Variable corpus due to going purchase and redemption.	1. Fixed corpus: no new units can be offered beyond the limit.
2. No listing on exchange transactions done directly with the fund.	2. Listed on the stock exchange for buying and selling.
3. Only one price namely NAV.	3. Two values available namely NAV and market trading price.
4. Highly liquid.	4. Mostly liquid.

Ans. 4(iii)

Accounting exposure: Accounting exposure is also called translation exposure. An enterprise having foreign operations in form of branches, subsidiaries, association or joint ventures need to translate the foreign currency financial statements of the concerned foreign operation for financial reporting purposes. Depending on their nature, different financial elements, viz. assets, liabilities, equity, expenses/losses and income/gains are translated using different exchange rates. This results in a difference in reporting currency trial balance of the reporting enterprise. The difference is treated as loss (if debit) or gain (if credit).

Translation risk refers to the possibility of exchange gains/losses arising out of such translation of financial statements. The translation losses/gains do not reflect any actual transfer of properties/settlement of liabilities and hence, are notional in nature. Empirical evidence suggests that the investors the notional nature of translation losses/gains and market value of business is practically independent of translation losses/gains reported.

Economic exposure: It refers to the extent to which the economic value of a company can decline due to changes in exchange rates. It is overall impact of exchange rate changes on the value of the firm. The essence of economic exposure is that exchange rate fluctuation significantly alters the cost of a firm's inputs and the prices of its outputs and thereby influences its competitive position substantially.

Ans. 4(iv)

Semi-strong Form theory: Semi-strong form efficiency market theory holds that stock prices adjust rapidly to all publicly available information. By using publicly available information, investors will not be able to earn above normal rates of return after considering the risk factor. To test semi-strong form efficient market theory, a number of studies was conducted which lead to the following queries. Whether it was possible to earn on the above normal rate of return after adjustments for risk, using only publicly available information and how rapidly prices adjust to public announcement with regard to earnings, dividends, mergers, acquisitions, stock splits.

Strong form theory: According to the efficient market theory, all available informations, public or private, is reflected in the stock prices. This represents an extreme hypothesis. To test this theory, the researcher analyzed returns earned by certain groups, viz. corporate insiders specialist on stock exchanges, mutual fund managers who have access to internal information (no publicly available). To possess greater resources or ability to intensively analyze information in the public domain. They suggested that corporate insiders (having access to internal information) and stock exchange specialists (having monopolistic exposure) earn superior rate of return after adjustment of risk. By the use of residual test and even studies one can test the semi-strong efficiency of the market. As no market is strongly efficient so, no test is there to check it.

Ans. 4(v)

Under a bill discounting arrangement, the drawer undertakes the responsibility of collecting the bills and remitting the proceeds to the financing agency, whereas under factoring agreement, the factor collects client's bills. Moreover, bill discounting is always with recourse whereas factoring

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can be either with recourse or without recourse. The finance house discounting bills does not offer any non-financial services unlike a factor which finances and manages the receivables of a client.

5. (a) [Q. 49 of SUMIT KUMAR Sir book-II; page- 149; Portfolio Management] Vivek is holding 1,000 shares of Right Choice Ltd. The current rate of dividend paid by the company is ` 5 per share and share is being sold at ` 50 per share in the market. However, several factors are likely to change during the course of the year as indicated below:

	Existing	Revised
Risk free rate	14%	12%
Market risk premium	8%	6%
Beta (b) value	1.42	1.27
Expected growth rate	6%	10%

In view of above factors, whether Vivek should buy, hold or sell the shares and why?

(6 Marks)

- (b) [Q. 21 of SUMIT KUMAR Sir book-I; page- 120; Financial Decision] Ruta Max Ltd. and Buta Max Ltd. operate in the same risk class and are identical in all respect except that Ruta Max Ltd. uses debt financing while Buta Max Ltd. does not opt for debt financing.

Ruta Max Ltd. has ` 25,00,000 debentures carrying coupon rate of 10%. Both the companies earn 20% profit before interest and taxes on their total assets of ` 50 lakh. Assume perfect capital market and rational investors and so on. The capitalisation rate for an all equity company is 15%. The corporate tax rate is 30%.

You are required to compute the value of both companies according to net income (NI) and net operating income (NOI) approach. (8 Marks)

- (c) Touch wood Ltd. has a portfolio of capital projects which yield an average expected rate of return of 15% per annum. This return is subject to risk and this is estimated as standard deviation of probabilities of expected returns of 2.5%. The risk free rate of interest is 6% per annum. Three projects have come up for consideration by Board of directors and these are designated as project A,B and C. Details of the estimates ,made for them appear below :

	Project		
	A	B	C
Expected return (%)	12	10	8
Risk (standard deviation of probability distribution)	1%	1.4%	2.4%
Co-efficient of correlation of project returns with portfolio returns	+0.58	+0.94	-0.1

Determine in each case whether you would recommend acceptance of the project. Since all the three projects promise a yield less than the expected on the current portfolio, one member of Board of directors asks why they should be consider at all. How would you answer him? (6 Marks)

Ans. 5(a)

	Existing	Revised
Expected return as per CAPM = k_e	$R_f + \beta(R_m - R_f)$	$R_f + \beta(R_m - R_f)$
$R_f + \beta(R_m - R_f)$	$14\% + 1.42 \times 8\%$	$12\% + 1.27 \times 6\%$
K_e	25.36%	19.62%
$P_0 = \frac{D_0(1+g)}{K_e - g}$	$\frac{5(1+0.06)}{0.2536 - 0.06}$	$\frac{5(1+0.10)}{0.1962 - 0.10}$
	= ` 27.37	= ` 57.17

Decision: Under the existing rate of return the expected market price of share would be ` 25.36. But the existing market is ` 50 per share, which is over priced by ` 24.64 (50 - 25.36). The investor is suggested to sell of the share.

If the growth in dividend rate is expected to increased from 5% to 9% the revised market price of share is ` 57.17. These would be an appreciation in share price by ` 7.17 (57.17 - 50). Hence, investor is suggested to hold the shares till market value of share increases.

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Ans. 5(b)

Valuation under Net Income approach

	Ruta Max Ltd.	Buta Max Ltd.
EBIT = $\frac{20}{100} \times 50,00,000$	10,00,000	10,00,000
Less Interest = $\frac{10}{100} \times 25,00,000$	2,50,000	
EBT	7,50,000	10,00,000
Less Tax 30%	2,25,000	3,00,000
EAT = Earning per equity	5,25,000	7,00,000
Cost of equity = K_e	15%	15%
Market value of equity	$= \frac{5,25,000}{0.15} = 35,00,000$	$= \frac{7,00,000}{0.15} = 46,66,666.67$
Debt Capital	25,00,000	---
Total Market Value of firm	60,00,000	46,66,666.67

Valuation under Net Operating Income Approach

$$\text{Value of Buta Max Ltd.} = \frac{10,00,000(1-0.30)}{0.15} = ₹ 46,66,666.67$$

$$\text{Value of Ruta Max Ltd.} = 46,66,666.67 + 25,00,000 \times 0.3 = 46,66,666.67 + 7,50,500 = ₹ 54,16,666.67$$

6. **[Q. 9 of SUMIT KUMAR Sir book-III; page- 23; Working Capital]** Ice Decor Ltd. sells goods at a uniform rate of goods profit of 20% on sales including depreciation as part of cost of production. Its annual figures for the current year are as under:

Sales(at 2 months credit)	24,00,000
Materials consumed (suppliers credit 2 months)	6,00,000
Wages paid (monthly at the beginning of the subsequent month)	4,80,000
Manufacturing expenses (Cash expenses are paid i One month in arrear)	6,00,000
Administration expenses (cash expenses are paid i One month in arrear)	1,50,000
Sales promotion expenses (paid quarterly in advance)	75,000

The company keeps one month stock each of raw materials and finished goods. A minimum cash balance of ₹ 80,000 is always kept. The company wants to adopt a 10% safety margin in the maintenance of working capital. The company has no work-in-progress.

Find out the requirement of working capital of the company on cash cost basis.

(20 Marks)

Ans. 6.

Calculation of Cost of Production & Cost of Sales

Material Consumed	= ₹ 6,00,000
Wages Paid	= ₹ 4,80,000
Manufacturing expenses	= 6,00,000
Cost of production = Manufacturing cost	= 16,80,000
Add: Administration Expenses	1,50,000
Sales Promotional expenses	= 75,000
Cost of Sales	<u>19,05,000</u>

Estimation of Net Working Capital or Cash Cost Basis

Current Assets

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PACKAGE FEES ₹ 10,000

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Stock of RM = $\frac{6,00,000}{12} \times 1$	50,000
WIP	0
Finished Goods = $\frac{16,80,000}{12} \times 1$	1,40,000
Debtors = $\frac{19,05,000}{12} \times 2$	3,17,500
Promotional Expenses advance 75000 $\times \frac{1}{4}$	18,750
Cash and Bank	80,000
Total Current Assets (A)	6,06,250
<u>Current liability</u>	
Creditors = $\frac{6,00,000}{12} \times 2$	1,00,000
O/S Wages = $\frac{4,80,000}{12} \times 1$	40,000
O/S Manufacturing expenses = $\frac{6,00,000}{12} \times 1$	50,000
O/S Administration Expenses = $\frac{1,50,000}{12} \times 1$	12,500
Total Current Liability (B)	2,02,500
W/C = (A) - (B) = CA - CL	4,03,750
Add 10% Net Safety margin W/C	40,375
Net Working Capital	4,44,125

All Theories Questions are from SUMIT KUMAR sir Book

7. Write notes on any four of the following :

- External commercial borrowings
- Financial viability of a project
- Counter party risk
- Optimal capital structure
- Zero coupon convertible notes.

(5 Marks each)

Ans. 7(i)

External Commercial Borrowings (ECBs) are defined to include commercial bank loans, buyers' credit, suppliers' credit, securitised instruments such as Floating Rate Notes and Fixed Rate Bonds, etc., credit from official export credit agencies and commercial borrowings from the private sector window of Multilateral Financial institutions such as International Finance Corporation (Washington), ADB, AFIC, CDC, etc.

India entered the international capital market for raising the foreign currency reserves since 1980. Prior to 1980, India depended primarily on multi-lateral institutions for obtaining the required funding support. Till 1979-80, the approach to commercial borrowings was of caution. However, in view of the generally deteriorating soft aid climates, bilateral and multilateral, greater resource had to be made to external commercial borrowings subject to maintenance of safe debt-service capability. Since, 1980 external commercial borrowings have been arranged constantly on increasing scale.

ECBs are being permitted by the Government as a source of finance for Indian corporate for expansion of existing capacity as well as for fresh investment. These are subject to guidelines issued by the RBI from time to time.

Ans. 7(ii)

Financial viability is necessary to support the profit motive of an organization. It deals with cash inflow and outflow from the project. A Project is said to be Financially viable if present value of cash inflow is more than the cash outflow from the project i.e. earnings are expected to be sufficient to meet the burden of servicing debt, to cover fixed charges, operating and maintenance costs, and, in addition, yield a reasonable return on the investment made.

Assessment of financial viability of the project involves consideration of following aspects:

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- (i) Cost of project
- (ii) Financial plans
- (iii) Requirement of working capital
- (iv) Projections of future profitability
- (v) Projections of cash flow
- (vi) Debt-equity Ratio, etc.

Ans. 7(iii)

Each party to a forward contract is exposed to default risk (or counterparty risk), the profitability that the other party (the counterparty) will not perform as promised. It is unusual for any cash to actually be exchanged at the inception of a forward contract, unlike futures contract in which each party posts an initial deposit (margin) as a guarantee of performance.

At any point in time, including the settlement date, only one party to the forward contract will flow money, meaning that side of a contract has a negative value. The other side of the contract will have a positive value of an equal amount. Following the example, if the T-bill price is \$992 at the (future) settlement date and the short does not deliver the T-bill for \$990 as promised, the short has defaulted.

Counter Party risk is caused by the following factors:-

- a) When there is a variation in the quantity of goods, place of delivery, price or
- b) If one of the parties of forward contract goes bankrupt.

The forward transactions carry counter party risk because these transactions are bilateral and are not exchange traded.

Ans. 7(iv)

The level of financial leverage that maximizes the firm's market value is the optimal capital structure. The capital structure of the company refers to the mix of the long-term finances used by the firm. It is the financing plan of the company. The objective of any financing company is to mix the permanent source of finance used by it in such a manner that will minimize their cost of capital and maximize their wealth. This proper mix of funds is referred to as the optimal capital structure.

Having debt in the capital structure implies presence of risk. Such a risk is bound to have an impact on the share prices. The difficulty of measuring such impact makes it difficult to find the level of optimal capital structure. Hence, usually optimum capital structure is substituted with Appropriate Capital structure.

Ans. 7(v)

A zero-coupon bond (also called a discount bond or deep discount bond) is a bond bought at a price lower than its face value, with the face value repaid at the time of maturity. It does not make periodic interest payments, or have so-called "coupons," hence the term zero-coupon bond. When the bond reaches maturity, its investor receives its par (or face) value. Examples of zero-coupon bonds include U.S. Treasury bills, U.S. savings bonds, long-term zero-coupon bonds, and any type of coupon bond that has been stripped of its coupons.

In contrast, an investor who has a regular bond receives income from coupon payments, which are usually made semi-annually. The investor also receives the principal or face value of the investment when the bond matures.

Some zero coupon bonds are inflation indexed, so the amount of money that will be paid to the bond holder is calculated to have a set amount of purchasing power rather than a set amount of money, but the majority of zero coupon bonds pay a set amount of money known as the face value of the bond.

Zero coupon bonds may be long or short term investments. Long-term zero coupon maturity dates typically start at ten to fifteen years. The bonds can be held until maturity or sold on secondary bond markets. Short-term zero coupon bonds generally have maturities of less than one year and are called bills. The U.S. Treasury bill market is the most active and liquid debt market in the world.

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Total Fees ₹ ~~13,000~~

PACKAGE FEES ₹10,000

CR BY SUMIT KUMAR

FM BY SUMIT KUMAR FEES ₹7,000

PACKAGE FEES ₹ 10,000

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