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Ideal Answers

CA PCC/IPCC

Financial Management

May, 2010 Exam Paper

An analysis of exam paper

- **100% Questions** from the concepts taught in NPA Classroom
- Questions asked in exam are below the level taught in classroom.

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(Special thanks to my student **Siddharth Jain & Palkesh Asawa** for cross checking and proof reading)

(Disclaimer: Questions asked in the exam may have wrong/inadequate information and/or ambiguous language. In that case the answers provided by institute may differ from these Ideal Answers. Every step has been taken to make accurate these answers, still if you find some errors, please bring it to our notice through email.)

Question 5(i)

What do you understand by Capital structure ? How does it differ from Financial structure?(2 marks)

Answer 5(i)

Capital employed means the amount of long term fund invested in the business and Capital Structure refers to the mix of various sources of finance within that capital employed. For example capital employed is Rs.10 lakhs and it comprises Rs.4 lakhs of equity, Rs.4 lakhs of Debt and Rs.2 lakhs of Preference shares then this composite is called capital structure. On the other hand Financial Structure refers to the overall financial position of the company including investment in various assets.

Question 5(ii)

Explain briefly the accounts receivable systems. (2 marks)

Answer 5(ii)

Following are the various aspects of accounts receivable system:

1) Determination of credit policy
    a. Credit Period: determining the period of credit to be allowed to the customers.
    b. Cash Discount Policy
2) Analysis of credit worthiness of Individual customers
3) Credit collection from customers.

Question 5(iii)

Briefly discuss the concept of seed capital assistance. (2 marks)

Answer 5(iii)

Following are the salient features of seed capital assistance:

1. Available to technically qualified entrepreneurs and/or persons possessing relevant experience, skills.
2. All the projects eligible for financial assistance from IDBI, directly or indirectly through refinance are eligible under the scheme.
3. The project cost should not exceed Rs.2 crores.
4. Maximum assistance under the project will be restricted to 50% of the required promoter's contribution or Rs.15 lakhs whichever is lower.
5. This is an interest free loan but carries a service charge of 1% per annum for the first five years and at increasing rate thereafter.

Question 5(iv)

Enumerate the various forms of bank credit in financing working capital of a business organisation. (2 marks)

Answer 5(iv)

Following are the various forms of bank finance available for financing working capital:

1. Cash Credit Limit: available against hypothecation of stock
2. Book Debts Limit: available against hypothecation of debtors
3. Bank overdraft: Normally available against Fixed Deposit.
4. Bill Discounting: bank provides money of bills receivable after deducting interest charges.
5. Advance against Document of title to goods.

Question 5(v)
Ascertain the compound value and compound interest of an amount of Rs. 75,000 at 8 percent compounded semiannually for 5 years. (2 marks)

Answer 5(v)
Note: It is assumed that 8% is the per annum rate.

$$Compound\ Value = Present\ Value\ \times (1+r)^n \quad = 75000\ \times (1.04)^{10}$$
= 75000 x 1.480
= 1,11,000

Compound Interest = 111000-75000 = 36000

Question 6
The following figures and ratios are related to a company :

a)	Sales for the year (all credit)	Rs. 30,00,000
b)	Gross Profit Ratio	25 percent
c)	Fixed assets turnover (basis on cost of goods sold)	1.5
d)	Stock turnover (basis on cost of goods sold)	6
e)	Liquid ratio	1 : 1
f)	Current ratio	1.5 : 1
g)	Debtors collection period	2 months
h)	Reserve and surplus to Share capital	0.6 : 1
i)	Capital gearing ratio	0.5
j)	Fixed assets to net worth	1.20 : 1

You are required to prepare :

a) Balance Sheet of the company on the basis of above details. (11 marks)
b) The statement showing Working capital requirement, if the company wants to make a provision for contingencies @ 10 percent of net working capital including such provision. (4 marks)

Answer 6
(a) Projected Balance Sheet

(1)
$$Gross\ Profit\ Ratio = \frac{Gross\ Profit}{Sales} \qquad 0.25 = \frac{GP}{30,00,000} \qquad GP = 7,50,000$$

Cost of Goods Sold = 30,00,000 x 75% = 22,50,000

(2)
$$Fixed\ Assets\ Turnover\ Ratio = \frac{Cost\ of\ Goods\ Sold}{Fixed\ Assets} \qquad 1.5 = \frac{22,50,000}{Fixed\ Assets}$$

Fixed Assets = 15,00,000

(3)
$$Fixed\ Assets\ to\ Net\ Worth = \frac{Fixed\ Assets}{Net\ Worth} \qquad 1.20 = \frac{15,00,000}{Net\ Worth} \qquad Net\ Worth = 12,50,000$$

(4)
Let us assume that preference share capital is zero.

$$Capital\ Gearning\ Ratio = \frac{Debt + preference}{Equity - Preference} \qquad 0.5 = \frac{Debt + 0}{12{,}50{,}000 - 0} \qquad Debt = 6{,}25{,}000$$

(5)
Reserves & Surplus = 12,50,000 x 0.6/1.6 = 4,68,750
Share Capital = 12,50,000 x 1/1.6 = 7,81,250

(6)

$$Stock\ Turnover = \frac{Cost\ of\ Goods\ Sold}{Stock} \qquad 6 = \frac{22{,}50{,}000}{Stock} \qquad Stock = 3{,}75{,}000$$

(7)

$$Debtors = Sales \times \frac{Collection\ Period}{12} = 30{,}00{,}000 \times \frac{2}{12} = 5{,}00{,}000$$

(8) Looking at the liquid ratio and Current ratio we can say that stock to current liability ratio is 0.5

$$0.5 = \frac{3{,}75{,}000}{Current\ Liability} \qquad Current\ Liability = 7{,}50{,}000$$

$$Current\ Ratio = \frac{Current\ Asset}{Current\ Liabilities} \qquad 1.50 = \frac{Current\ Assets}{7{,}50{,}000} \qquad Current\ Assets = 1125000$$

Cash in Hand = 11,25,000 – 3,75,000 -5,00,000 = 2,50,000

Balance Sheet

Liabilities	**Rs.**	**Assets**	**Rs.**
Share Capital	7,81,250	Fixed Assets	15,00,000
Reserves & Surplus	4,68,750	Stock	3,75,000
Debt	6,25,000	Debtors	5,00,000
Current Liabilities	7,50,000	Cash	2,50,000
	26,25,000		**26,25,000**

(b) Calculation of working capital:

Working Capital = Current Assets – Current Liabilities
= 11,25,000 – 7,50,000
= 3,75,000

If the above amount of Rs.3,75,000 is 90% then full amount is = 3,75,000 / 0.9 = Rs.4,16,667

Question 7(a)

The management of P Limited is considering to select a machine out of the two mutually exclusive machines. The company's cost of capital is 12 percent and corporate tax rate for the company is 30 percent. Details of the machines are as follows :

	Machine-I	Machine-II
Cost of machine	Rs. 10,00,000	Rs. 15,00,000
Expected life	5 years	6 years
Annual income before tax and depreciation	Rs. 3,45,000	Rs. 4,55,000

Depreciation is to be charged on straight line basis. You are required to :

i. Calculate the discounted pay-back period, net present value and internal rate of return for each machine.
ii. Advise the management of P Limited as to which machine they should take up.

The present value factors of Re. 1 are as follows :

Year	**1**	**2**	**3**	**4**	**5**	**6**
At 12%	.893	.797	.712	.636	.567	.507
At 13%	.885	.783	.693	.613	.543	.480
At 14%	.877	.769	.675	.592	.519	.456
At 15%	.870	.756	.658	.572	.497	.432
At 16%	.862	.743	.641	.552	.476	.410

Answer 7(a)

Particulars	**Machine**	
	1	**2**
Cash Flow Before Tax	345000	455000
Depreciation	200000	250000
Profit Before Tax	145000	205000
Tax @30%	43500	61500
Profit After Tax	101500	143500
Depreciation	200000	250000
Cash Flow After Tax	301500	393500

Year	**I**			**II**		
	CFAT	**PV@12%**	**Cum.**	**CFAT**	**PV@12%**	**Cum.**
0	-1,000,000			-1,500,000		
1	301,500	269,240	269,240	393,500	351,396	351,396
2	301,501	240,296	509,536	393,500	313,620	665,015
3	301,502	214,669	724,205	393,500	280,172	945,187
4	301,503	191,756	915,961	393,500	250,266	1,195,453
5	301,504	170,953	1,086,914	393,500	223,115	1,418,568
6				393,500	199,505	1,618,072

Net Present Value:
Machine 1: 10,86,914– 1000000 = 86914
Machine 2: 16,18,072 – 1500000 = 118072

Equivalent Net Present Value:
Machine 1: 86914/ 3.605 = 24109
Machine2: 118072/4.111 = 28720

Discounted Pay Back Period:

$$Machine\ 1: \quad 4+\frac{(1000000-915961)}{170953}=4.49\ years$$

$$Machine\ 2: \quad 5+\frac{(1500000-1418568)}{199505}=5.41\ years$$

Internal Rate of Return:

$$IRR=Lower\ Rate+\frac{NPV\ in\ case\ of\ lower\ rate}{NPV\ in\ case\ of\ lower\ rate+NPV\ in\ case\ of\ higher\ rate}\times(HR-LR)$$

Machine 1:
NPV @15% = Rs.10935
NPV @16% = Rs.-12883

$$IRR=15+\frac{10935}{10935+12883}\times(16-15)=15.46\%$$

Machine 3:
NPV @14% = Rs.29928
NPV @15% = Rs.-10602

$$IRR=14+\frac{29928}{29928+10602}\times(15-14)=14.74\%$$

Conclusion:
On the basis of IRR and Discounted Pay Back Period Machine 1 is better but on the basis of NPV and ENPV machine 2 is better. NPV method is considered to be better than other methods hence we can advise management of P Limited to **buy machine 2**.

Question 7(b)

The following details are forecasted by a company for the purpose of effective utilisation and management of cash :

i. Estimated sales and manufacturing costs :

Year and month 2010	**Sales Rs.**	**Materials Rs.**	**Wages Rs.**	**Overheads Rs.**
April	4,20,000	2,00,000	1,60,000	45,000
May	4,50,000	2,10,000	1,60,000	40,000
June	5,00,000	2,60,000	1,65,000	38,000
July	4,90,000	2,82,000	1,65,000	37,500
August	5,40,000	2,80,000	1,65,000	60,800
September	6,10,000	3,10,000	1,70,000	52,000

ii. Credit terms :
  - Sales-20 percent sales are on cash, 50 percent of the credit sales are collected next month and the balance in the following month.
  - Credit allowed by suppliers is 2 months.
  - Delay in payment of wages is ½ (one-half) month and of overheads is 1 (one) month.

iii. Interest on 12 percent debentures of Rs. 5,00,000 is to be paid half-yearly in June and December.

iv. Dividends on investments amounting to Rs. 25,000 are expected to be receive in June, 2010.

v. A new machenery will be installed in June, 2010 at a cost of Rs. 4,00,000 which is payable in 20 monthly instalments from July, 2010 onwards.

vi. Advance income-tax to be paid in August, 2010 is Rs. 15,000.

vii. Cash balance on 1st June, 2010 is expected to be Rs. 45,000 and the company wants to keep it at the end of every month around this figure, the excess cash (in multiple of thousand rupees) being put in fixed deposit.

You are required to prepare monthly Cash budget on the basis of above information for four months beginning from June, 2010. (9 marks)

Answer 7(b)

Working Note 1: Cash Sales and Collection from Debtors

Month	**Sales**	**Cash Sales 20%**	**From Debtors**		**Total Collection**
			50%	**50%**	
April	420000	-	-	-	-
May	450000	-	-	-	-
June	500000	100000	180000	168000	448000
July	490000	98000	200000	180000	478000
August	540000	108000	196000	200000	504000
September	610000	122000	216000	196000	534000

Working Note 2: Payment of Wages

Month	Wages	Payment		Total Payment
		50%	50%	
May	160000	-	-	-
June	165000	80000	82500	162500
July	165000	82500	82500	165000
August	165000	82500	82500	165000
September	170000	82500	85000	167500

Cash Budget

(From July to September)

Particulars	**June**	**July**	**August**	**September**
Opening Balance	45000	45500	45500	45000
Cash Sales & Debtors Collection	448000	478000	504000	534000
Dividend	25000	-	-	-
Total: A	**518000**	**523500**	**549500**	**579000**
Payments:				
Creditors	200000	210000	260000	282000
Wages	162500	165000	165000	167500
Overheads	40000	38000	37500	60800
Interest	30000	-	-	-
Machine Installments	-	20000	20000	20000
Advance Income tax	-	-	15000	-
Fixed Deposit	40000	45000	7000	3000
Total: B	**472500**	**478000**	**504500**	**533300**
Closing Balance	45500	45500	45000	45700

Question 8(a)

SK Limited has obtained funds from the following sources, the specific cost are also given against them :

Sources of funds	**Amount Rs.**	**Cost of Capital**
Equity shares	30,00,000	15 percent
Preference shares	8,00,000	8 percent
Retained earnings	12,00,000	11 percent
Debentures	10,00,000	9 percent (before tax)

You are required to calculate weighted average cost of capital. Assume that Corporate tax rate is 30 percent. (3 marks)

Answer 8(a)

$$K_o = \frac{K_e \times E + K_P \times P + K_r \times R + K_d(1-t) \times D}{E + P + R + D}$$

$$K_O = \frac{15\% \times 30 + 8\% \times 8 + 11\% \times 12 + 9\% \times (1-0.3) \times 10}{30 + 8 + 12 + 10} = \frac{709}{60} = 11.82\%$$

Question 8(b)

State the role of a Chief Financial Officer. (3 marks)

Answer 8(b)

The Chief Financial Officer (CFO) is required to look into the financial implications of any decision in the firm. Thus all decisions involving management of funds comes under the preview of CFO. Some of these have been listed below:

Estimating the requirements of funds: Estimates long term as well as short term requirement of fund.

Decision regarding capital structure: Determining mix of various sources of finance which optimizes financial risk and reduces cost of capital.

Investment decision: The investment of funds in a project has to be made after careful assessment of the various projects through capital budgeting.

Dividend decision: It depends upon future reinvestment opportunities.

Evaluating financial performance: CFO has to constantly review the financial performance of the various units of the organization.

Financial negotiations: Negotiations with the financial institutions, banks, and public depositors.

Keeping touch with stock exchange quotations and behavior of share prices: This involves analysis of major trends in the stock market and judging their impact on the prices of the share of the Company.

Question 8(C)

Distinguish between Fund Flow Statement and Cash Flow Statement. (3 marks)

Answer 8(C)

Cash flow statement	Fund flow statement
Prepared as per the requirements of AS-3	There is no prescribed format
Make of Cash flow statement is compulsory for all the listed public companies	Not compulsory
Shows movement of Cash and cash equivalents during the period	Shows movement of working capital, including cash during the period
It is classified into cash flows from operating, investing and financing activities	It is classified in sources and application of funds.
Note of calculation of cash and cash equivalents is given.	Statement of Funds from operation and Statement of Changes in Working capital is also prepared with fund flow statement.