INTERMEDIATE EXAMINATION

GROUP I

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2016

Paper- 8: COST ACCOUNTING AND FINANCIAL MANAGEMENT

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

The figures in the margin on the right side indicate full marks.
All sections are compulsory. Each section contains instructions regarding the number of questions to be answered within the section.
All working notes must form part of your answers.
Wherever necessary, candidates may make appropriate assumptions and clearly state them.
No Present value factor table or other table will be provided along with this question paper.

Section – A

Question No. 1 is compulsory. Answer all questions under each sub division.

1. (I) Answer the following questions. Each question carries two marks. 2×5=10

(i) The average quarterly consumption of a material is 5200 units. Unit cost is ₹ 65. Storage cost is 15% p.a. and the ordering cost is ₹150 per order. Find the Economic Order Quantity (EOQ).

(ii) At the level of 60,000 units of output, factory overheads were ₹ 3,75,000 out of which 40% was fixed. Find the amount of factory overheads at 78,000 units of output.

(iii) Standard Time allowed = 3 minutes per unit. Normal time rate = ₹ 30 per hour; Taylor's differential piece rate basis: 80% and 120% for below and above standard respectively. Worker W produces 225 units in an eight hour day. Calculate his earnings for the day.

(iv) Classify the following items under the appropriate heading as per AS 3 in the cash flow statement:
(a) Repayment of long term borrowings
(b) Dividend paid
(c) Dividend received
(d) Income-tax paid on trading profits

(v) Total Current Assets = ₹ 700 lacs of which core is ₹ 180 lacs; Current Liabilities excluding bank borrowings = ₹300 lacs.
What would be the maximum permissible bank borrowing as per Methods II and III of the Tandon Committee Norms?

(II) State whether the following are True or False (Write only the question Roman Numeral and whether True or False): 1×5=5

(vi) While working out the EOQ, carrying cost has the element of interest cost. Hence it can be stated that interest cost is treated as part of material cost under CAS—6.
(vii)Normal bad debt is considered as a selling overhead and included in the cost.
(viii)Carriage and Cartage expenses (inward freight) of fuel for a furnace in a factory is treated as direct material cost.
(ix) If dividends grow at 'g'% p.a. and cost of equity is k_e, the current market price of a share is determined by a geometric progression with common ratio (1 + g)/(1 + k_e).
(x) The MM Hypothesis assumes that the overall cost of capital is independent of the capital structure.

(III) Fill in the blanks (Write only the Roman Numeral and the content filling the blank): 1×5=5

(xi) Variable overheads are absorbed by products based on _______level of capacity utilization.
(xii)In a textile factory, yarn is starched before it is made into textile. The cost of starch is ____________ (give the element of cost).
(xiii)The actual capacity of a manufacturing unit based on temporary sales expectancy is 10,000 units due to lack of orders. The practical capacity is 11,500 units. Then, 1500 units is________ capacity.
(xiv) The ratio of % change in one variable to the % change in some other variable is defined as ____________ in the context of capital structure and finance.
(xv) E is an exporter who relinquishes his right to a receivable due at a future date in exchange for immediate cash payment at an agreed discount, passing on all the risks and responsibilities for collecting the debt to B. This arrangement is called__________ .

(IV)Match the following (You may opt to write the Roman Numbers and the corresponding matched alphabet instead of copying contents into the answer books): 1×5=5

(xvi)	Cash inventory	(a)	Baumol Model
(xvii)	Halsey Plan	(b)	Dividend Discount Model
(xviii)	John Burr Williams	(c)	Waste Reduction Incentive
(xix)	Group Bonus Plan	(d)	Based on 33 $\frac{1}{3}$% of time saved
(xx)	Rowan Plan	(e)	Indirect Labour Cost
		(f)	Based on time saved
		(g)	Based on proportion of time saved to time allowed

Answer:

1. (I) (i) Average annual consumption - 5200 × 4 = 20,800 units.

$$EOQ = \sqrt{\frac{2AO}{C}}$$

$$= \sqrt{\frac{2 \times 20800 \times 150}{65 \times .15}}$$

= 800 units.

(ii) 3,75,000 × 60% = 2,25,000 is variable for 60,000 units.
Unit Variable cost = ₹3.75; Fixed Cost = 1,50,000.
At 78,000 units, OH cost = {(3.75 × 78,000) + 1,50,000} = 442500.

(iii) Standard units per day = 20 × 8 = 160.
Actual = 225
Taylor's differential rate earnings = 120% × 30/20 × 225 = 405 ₹ for the day.

Alternative Presentation for last line:

₹30 / ₹20 = ₹1.50 per Unit. ∴ 120% of ₹1.50 = 1.80 X 225 = ₹ 405

for the day.

(iv)

Cash Flows From:		
Operating Activities	Investment Activities	Financing Activities
d)	c)	a); b)

(v) WC gap = ₹400 i.e ₹(700 – 300) in lacs
Method II:
Maximum permissible borrowings = ₹400 – (25% × ₹700) = ₹(400 – 175)
= 225 lacs
Method III:
Maximum Permissible borrowings =₹400 –₹{180+25% (700-180)} = 400-310 = 90 lacs.

(II) (vi) False (Only to determine EOQ, interest is taken. Interest is not part of material cost under CAS).
(vii) True
(viii) False (Fuel is indirect material. Inward freight is part of material cost for the material being transported. Since it is transport inward of indirect material, such inward freight is part of fuel cost and therefore indirect material cost. Fuel does not form part of the output and therefore is indirect)
(ix) True
(x) True

(III) (xi) Actual
(x) Direct Material
(xi) Idle
(xii) Leverage
(xiii) Forfeiting

(IV)

xvi	a
xvii	f
xviii	b
xix	C
xx	g

Section – B

Answer any three questions from question numbers 2, 3, 4 and 5.
Each question carries fifteen marks.

2. (a) The following information is available relating to raw material movement in the month of November, 2016:

Date (November 2016)	Details of quantities in number of units
1	Opening stock 500 at ₹ 200 per unit
3rd to 5th	Issue of 250 units
13th	Received 200 units @ ₹ 190
14th	Returned to Stores 15 units issued earlier to November at opening stock rate
16th	Issue of 250 units
20th	Receipt of 240 units @ ₹ 195
24th	Issue of 290 units

You are required to compute the inventory turnover ratio for the month of November, 2016 using
(i) FIFO and (ii) LIFO methods of pricing and comment on your findings. (A detailed stores ledger account is not required. Only relevant figures for the ratio need to be computed). **10**

(b) A factory has three production departments - P-1, P-2 and P-3 and two service departments - S-I and S-2. Overheads are allocated in rupees as follows:
P-1 1,50,000; P-2 75,000; P-3 60,000
S-1 1,05,300; S-2 1,35,000

The expenses of the service departments are charged as follows:

	P-1	P-2	P-3	S-1	S-2
S-1	20%	40%	30%	—	10%
S-2	40%	20%	20%	20%	—

Find out the total overheads of Departments S-1 and S-2 including their charges on each other by the simultaneous equation method. Calculate the total overheads of P-2. **5**

Answer:

2. (a)

Date Nov	Receipts			Issue (FIFO)			Closing Stock (FIFO)			Issue (LIFO)			Closing Stock (LIFO)		
	Qty	Rate		Qty	Rate		Qty	Rate	₹	Qty	Rate		Qty	Rate	₹
1							500	200	100000				500	200	100000
3-5				250	200		250	200		250	200		250	200	
13	200	190													
14	15	200					250 200 15	200 190 200					250 200 15	200 190 200	
16				250	200		200 15	190 200		15 200 35	200 190 200		215	200	

20	240	195					200 15 240	190 200 195					215 240	200 195	
24				200 15 75	190 200 195		165	195	32175	240 50	195 200		165	200	33000
Total opening plus closing stock value									132175						133000
Average stock									66087.5	rft					66500
Consumption Value (515 × 200 + 200 × 190 + 75 × 195)									155625	(350 × 200 + 200 × 190 + 240 × 195)					154800
Inventory Turnover ratio = Consumption/Avg. Invy.									2.35						2.33

Comment: Declining prices imply lower consumption cost under LIFO together with higher inventory value which reduces the numerator and increases the denominator and hence the marginal reduction in the Inventory turnover ratio.

(b) Let the total overheads of S-1 be x and of S-2 be y.
x = 105300 + .2 y
i.e.. x-.2 y = ₹105300 A
y= ₹1,35,000+ .1x
i.e. -x + 10 y = ₹13,50,000 B

Adding A+B, we get 9.8 y = ₹14,55,300
i.e. y = ₹1,48,500
Substituting value of y in Equation A, We get x = ₹105300 + .2 x 148500
x = ₹1,35,000
Overheads of P - 2 = .4 x 1,35,000 + .2 x 148500 + 75,000 = ₹1,58,700.

3. (a) APH, A Publishing House publishes Cost Accounting text books. The following are some expenses in a certain period:

Sl. No.	**Details**	**Amount ₹**
(i)	**Amount paid to employees for proofing and editing**	**50,000**
(ii)	**Amount paid to professional consultants for proofing**	**20,000**
(iii)	**Hire charges for special binding equipment**	**40,000**
(iv)	**Salary paid to the press machinery workmen**	**1,00,000**
(v)	**Subsidy received from an Accounting Body to encourage such work**	**15,000**
(vi)	**Inward freight of paper for publishing**	**10,000**
(vii)	**Penalty paid to a Business School, a major customer, for not releasing the books on time when the academic year started.**	**25,000**
(viii)	**Cost of ink used in publishing**	**30,000**
(ix)	**Royalty on sales**	**70,000**
(x)	**Payment made in foreign currency for purchase of special paper for cover page: (100 US $ @ ₹ 68 per US $)**	

You are required to present the items that would be considered under the element "Direct Expenses" for publishing and also list the items that would require disclosure according to CAS—10.
You are also required to state why and under which element of cost you would account for items that you have not shown under Direct Expenses.
(You may present the Sl. No. and amount columns without copying "Details" column content into your answer book) 10

(b) Classify the following costs according to function and under the appropriate element

of cost in the context of a jute bag manufacturing unit:
(i) Nuts and Bolts
(ii) Commission on sales
(iii) Printing and Stationery
(iv) Product Catalogue
(v) Secondary packing material used in the delivery van. **5**

Answer:

3. (a) Direct Expenses

Sl. No.	Amount ₹	Remarks
Direct Expenses under CAS-10		
(ii)	20,000	
(iii)	40,000	
(v)	-15,000	
ix)	70,000	
Other Items, their classification and reason		
(i)	50,000	Salaries. Hence Direct Labour
(iv)	1,00,000	Salaries, Hence Direct Labour
(vi)	10,000	Direct Material (Paper is direct material; Inward freight of paper is part of direct material)
(vii)	25,000	(Penalties to be excluded from total cost according to generally accepted Cost Accounting Principles)
(viii)	30,000	Direct Material (Ink is part of the output)
(x)	6800	Direct Material
Disclosure under CAS 10		
V		
vii		

(b)

Element Function	Material	Labour	Expense
Production Overheads	Nuts and Bolts (i)		
Administration Overheads	Printing & Stationery (iii)		
Selling Overheads	Product Catalogue (iv)	Commission on Sales (ii)	
Distribution Overheads	Secondary Packing material item in delivery van (v)		

4. (a) The following information is available in respect of some employees of Good Pay Ltd. for the production period consisting of 12 months:
Worker X is a direct labourer in the shop floor. Z is his supervisor, AO is the Administrative Officer and MO is the Marketing Officer.
LTA (₹) for X, Z, AO, MO are : 15,000; 20,000; 30,000; 40,000 respectively.
Night Shift Allowances (₹) paid to X and Z due to general pressure: 1,60,000 and 1,80,000 respectively.
Night Shift Allowance (₹) (excluding the above) due to special customer demand for rush delivery (paid to X and Z): 50,000 each.
Special exhibition arrangements entailing extra work: amount paid to MO: ₹ 1,20,000.
Fringe Benefits paid to each of X, M, AO and MO: ₹ 40,000.
Attendance Bonus: ₹ 25,000 each.
Employer's contribution to PF: same as amounts under LTA.

Lost time due to scheduled maintenance—amount paid to X ₹ 15,500.
Amount paid to X when he did not work due to severe and unexpected machine break down ₹ 25,000.
Prepare a statement showing the amounts that would come under Direct Labour, Production Overhead, Administrative Overheads and Selling Overheads according to the principles of Cost Accounting Standards. 10

(b) How will you treat the following in Cost Accounts?
(i) Spoiled Work
(ii) Insurance Charges on Plant and Machinery used for production, on finished goods in transit and on vehicles used by the Accounts Office? 5

Answer:

4. (a)

Items	Direct Labour	Production Overhead	Administrative Overheads	Selling Overheads
	₹	₹	₹	₹
LTA	X: 15,000	Z: 20,000	AO: 30,000	MO: 40,000
Night Shift Allowance (general pressure)		(X)1,60,000 (Z)1,80,000		
Night Shift Allowance (rush delivery)	50,000	50,000		
Special Exhibition Arrangements				1,20,000
Fringe Benefits	40,000	40,000	40,000	40,000
Attendance Bonus		(X)25,000 (Z)25,000 (AO)25,000 (MO)25,000		
Employer's contribution to PF	15,000	20,000	30,000	40,000
Lost Time due to scheduled maintenance		(x)15,500		
Severe Break down (Charge directly to Costing P and La/c)				

(b) (i) Spoiled Work:
If it is inherent to the nature of job or production and is normal, it is charged to the specific job or as an overhead for the entire production if there is no specific job.
Abnormal spoilage should be charged to the Costing Profit and Loss Account.
Any proceeds or recoveries should be credited to the account where the spoilage was debited.

(ii) Insurance Charges

Plant and machinery for production	Production or factory overhead
Finished goods in transit	Distribution overhead
Vehicles for Accounts Dept.	Administration overheads

5. (a) A machine shop has 6 identical machines manned by 6 operators. The machines cannot be worked without an operator being wholly engaged on it. The original cost of all these six machines is totally ₹ 8 lakhs. The following particulars are furnished for a six month period:

Normal available hours per month per operator	**208**
Absenteeism (without pay)-hours per operator	**18**

Leave with pay-hours per operator	**20**
Normal idle time unavoidable-hours per operator	**10**
Average rate of wages per day of 8 hours per operator	**₹ 24**
Production Bonus estimated	**15% on wages**
Value of power consumed	**₹ 8,050**
Supervision and indirect labour	**₹ 3,300**
Lighting and Electricity	**₹ 1,200**

The following particulars are for a year:
Repairs and maintenance including consumable are 3% on value of machines.
Insurance ₹ 40,000.
Depreciation is 10% on original cost. Assume no salvage value.
Other sundry works expenses ₹12,000.
General management expenses allocated ₹ 54,530.
You are required to work out a comprehensive machine hour rate for the machine shop.
(Present items of expenses for six months and arrive at the machine hour rate at the final step). **10**

(b) Two components A and B are used as follows:

Normal usage	**600 units**	**per week each**
Maximum usage	**900 units**	**per week each**
Minimum usage	**300 units**	**per week each**
Reorder quantity	**A 4,800 units**	**B 7,200 units**
Reorder period	**A 4 to 6 weeks**	**B 2 to 4 weeks**

Calculate for each component:
(i) Re-order level,
(ii) Minimum level,
(iii) Maximum level,
(iv) Average stock (Based on Re-order quantity) **5**

Answer:

5. (a) Computation of comprehensive machine hour rate

	₹
Operators' wages	20,520
Production bonus (15% of wages)	3,078
Power consumed	8,050
Supervision and indirect labour	3,300
Lightning and electricity	1,200
Repairs and maintenance (3% of ₹ .8 lakhs) / 2	12,000
Insurance (6/12 × 40,000)	20,000
Other sundry works expenses for 6 months	6,000
Depreciation for 6 months	40,000
General management expenses for 6 months	27,265
Total overheads for 6 months	1,41,413

Comprehensive machine hour rate = 1,41,413 / 5760 = ₹ 24.55.

Workings:

Calculation of total machine hours utilised:

Normal available hours per month per operator		208 hours
Less: Unutilised hours due to:		
Absenteeism	18 hours	
Leave	20 hours	
Idle time	10 hours	48 hours
Total hours utilised per month per operator		160 hours
Total hours utilised for 6 months for 6 operators (160 × 6 × 6)		5,760

Calculation of total wages for 6 months for 6 operators:
Average rate of wages per hour = 24 /8 = ₹ 3.
Normal hours for which wages are to be paid = 208 -18 = 190 hours.
Total wages for 6 months for 6 operators = 1 9 0 × 6 × 6 × 3 = ₹ 20,520.

(b)

		Component A	Component B
(i)	Re-order level	6×900= 5400 units	4 × 900 = 3600 units
(ii)	Minimum Level	5400 - (600 × 5) = 2400 units	3600 - (600 × 3) = 1800 units
(iii)	Maximum Level	5400 + 4800 - 1200 = 9000 units	3600+7200 - 600 =10200 units
(iv)	Average stock level = Minimum level + ROQ/2	2400 + 2400 = 4800	1800+3600 = 5400 units

Section C

Answer any two questions from question numbers 6, 7 and 8.
Each question carries fifteen marks.

6. (a) Companies X, Y and Z Ltd. have the following information with a common expectation of 15% return on investment.

Details	X Ltd.	Y Ltd.	Z Ltd.
EBIT (₹)	20,00,000	20,00,000	20,00,000
No. of equity shares	3,00,000	2,50,000	2,50,000
12% Debentures	—	15,00,000	18,00,000

Find the value of each firm and the value per equity share for each firm under the Modigliani-Miller Approach for each of the following situations: **10**

(i) Assuming there are no taxes.
(ii) Assuming 50% tax rate.

(b) The following parameters are furnished relating to a firm as on a certain date:

Stock Turnover Ratio	6 times
Debtors	2 months (Sales value)
Gross Profit to Sales ratio	20%
Capital	1,00,000
Reserves and Surplus	20,000
Creditors Turnover ratio	5 times
Fixed Assets Turnover ratio	5 times
Closing Stock is ₹ 5,000 more in value than the opening stock and closing creditors were equal to the opening value. The Gross Profit during the period was ₹ 60,000 and there were no cash sales or purchases.	

Prepare the Balance Sheet as at that date giving the break-up of as many items as possible. 5

Answer:

6. (a) (i) Assuming no taxes:

	X	Y	Z
EBIT(₹)	20,00,000	20,00,000	20,00,000
Value of the Firm (EBIT/15 %)	1,33,33,333	1,33,33,333	1,33,33,333
Less: Value of Debt	-	15,00,000	18,00,000
Value of Equity	1,33,33,333	1,18,33,333	1,15,33,333
No. of Equity Shares	3,00,000	2,50,000	2,50,000
Value per Equity Share	44.44	47.33	46.13

(ii) Assuming 50 % tax rate:

	X	Y	Z
EBIT (₹)	20,00,000	20,00,000	20,00,000
Less : Interest	-	1,80,000	2,16,000
EAT= PBT	20,00,000	18,20,000	17,84,000
Taxes (50%)	10,00,000	9,10,000	8,92,000
PAT	10,00,000	9,10,000	8,92,000
Equity Capitalisation @ rate 15 % = value of unlevered firm	66,66,667		
Value of the firm = Value of unlevered firm + Debt (Tax rate)		66,66,667 + 15,00,000 × .5 = 74,16,667	66,66,667 +18,00,000 × .5 =75,66,667
Value per equity share = (Value of the firm –value of Debt)/no. of shares	66,66,667 /3,00,000 =22.22	59,16,667/2,50,000 = 23.67	57,66,667/2,50,000 =23.07

According to MM Hypothesis, this difference in share value will give rise to arbitrage and equilibrium will be reached where all the three firms will have the same market value proving their hypothesis that value of the firm is independent of leverage.
(Note: Candidates need not write the conclusion since it is not asked for)

(b) Statement of Proprietary fund

	₹	₹
Capital	1,00,000	
Add : Reserves and surplus	20,000	1,20,000
Alternative Method:		
Fixed Assets		60,000
Current Assets :		
Cash	16,500	
Stock	42,500	
Debtors	50,000	
	1,09,000	
Less : Current Liabilities		
Creditors	49,000	60,000
Proprietor's Fund		1,20,000

Note: Balance Sheet may also be prepared whereby total of Share Capital and Reserves and Surplus may be shown as Proprietary Fund.

Workings:

Rate of Gross Profit = 20%

Amount of Gross Profit ₹ 60,000

Sales $= \frac{60,000}{20} \times 100 =$ ₹ 3,00,000

Cost of goods sold 3,00,000 - 60,000 = ₹ 2,40,000

Stock velocity $= \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$

$6 = \frac{2,40,000}{\text{Average Stock}}$; Average stock $= \frac{2,40,000}{6}$

Average stock = ₹ 40,000

Opening Stock + Closing Stock = 40,000 × 2 = ₹ 80,000

Closing Stock $= \frac{80,000+5,000}{2} =$ ₹ 42,500

Opening stock = 80,000 - 42,500 – ₹ 37, 500

Fixed assets turnover ratio (5) $= \frac{3,00,000}{\text{Fixed Assets}}$

Fixed assets $= \frac{3,00,000}{5}$; Fixed assets = ₹ 60,000

Debtor's turnover ratio $= \frac{12}{2} = 6$ times

Average Debtors $= \frac{3,00,000}{6} =$ ₹ 50,000

Here average Debtors is assumed to be debtors.

Therefore, debtors = ₹ 50,000

Creditor's turnover ratio $= \frac{\text{Credit Purchase}}{\text{Average Creditors}}$

$5 = \frac{2,45,000}{\text{Average Creditors}}$; Creditors = ₹ 49,000

Purchases = Cost of goods sold + Closing Stock - Opening stock
= 2,40,000 + 42,500 - 37,500 = ₹ 2,45,000

Cash in hand = Total Liabilities - Assets
= (1,00,000 + 20,000 + 49,000) - (60,000 +50,000 + 42,500)
= ₹16,500.

7. (a) A company is considering the purchase of a stapler manufacturing machine. Two mutually exclusive machines, A and B are being evaluated. Relevant information is given below:

Particulars	Machine A	Machine B
Cost of the machine (₹)	**10,00,000**	**15,00,000**
Life in years	**5**	**5**
Salvage value (₹)	**20,000**	**40,000**
Cost of production per stapler (excluding depreciation)	**30**	**28**

Other Information:

The staplers can be sold at ₹ 40 each. Depreciation is based on cost net of residual value over the life of the machines on a straight line basis. Assume that taxes and operating cash flows occur at the end of the year and that salvage value is also taxed at the end of the 5th year. Assume 50% tax rate. Use 12% discount rate and P.V. factors with decimal places as given. Present your calculations up to the nearest

rupee.
Production volume = 1,00,000 units annually.
You are required to evaluate the proposals using NPV method, showing the discounted cash flows for each of the machines and advise from a financial perspective on the choice of a suitable alternative.
Do you feel that NPV would be the ideal measure in this case to take the decision? 10

End of year	1	2	3	4	5	6	7	8	9
P.V. factor @ 12%	0.893	0.797	0.712	0.636	0.567	0.507	0.452	0.404	0.361

(b) What is a Financial Lease? What are its characteristic features? 5

Answer:

7. (a)

Details	Machine A	Machine B	Working Notes
Revenue ₹/unit	40	40	
Cost excluding Depn	30	28	
Cash Profit	10	12	
Tax (50 %)	5	6	
Cash profit per unit after tax	5	6	
Cash profit for 1,00,000 units p.a.	5,00,000	6,00,000	
Depreciation Shield	98,000	1,46,000	50%(10,00,000-20,000)/5 50%(15,00,000-40,000)/5 (Cost less salvage value over 5 years)
Annual Cash Inflows	5,98,000	7,46,000	
P.V. factor yr 1 to 5 annuity	3.605	3.605	
P.V. of annual cash inflows	21,55,790	26,89,330	
Discounted Salvage value after tax at the end of year 5	5670	11,340	20,000 × .5 × .567 40,000 × .5 × .567
P.V. of inflows	21,61,460	27,00,670	
P.V. of Outflows = Initial outlay	10,00,000	15,00,000	
Net Present Value (NPV)	+11,61,460	+ 12,00,670	
Conclusion: As per NPV method, B is preferable. NPV is not the best method in this case since B's NPV are only marginally higher than A's, whereas initial outlay is 1.5 times that of A.			

Note: The question is specific that nearest rupee is used, discount factors only as given be taken and each proposal is to be presented. Hence alternative solutions where figures vary due to being in ₹ lacs or p.v. factors being different or incremental approach are not acceptable.

Even if a student works out cash flows showing profit after adding back depreciation instead of cash profits + shield on depreciation, he will have to arrive at the annual cash inflows.

(b) Financial Lease (FL) and its characteristics

A lease is classified as a financial lease if it ensures the amortaisation of the entire cost of investment plus the expected return on capital outlay during the term of the lease.

It is usually for a longer period and covers the life of the asset.

Financial Lease is commonly used for land, building, machinery and fixed equipments.

The present value of the total lease rentals payable during the period of the lease exceeds or is equal substantially to the whole of the fair value of the leased asset, i.e. the lessor recovers the investment and an acceptable rate of return within the lease period.

The lease period is longer compared to an operating lease.

It is usually non cancellable prior to its expiration date.

In a financial lease the lessor is mostly responsible for the maintenance and service of the asset.

Financial Lease usually provides the lessee an option of renewing the lease for a further period at normal rent.

8. (a) The following information is given:

Details	
Annual production	**72,000 units**
Raw Materials Inventory	**2 months' consumption**
Finished Goods Stock	**3 months**
Work-in-Progress (Raw Materials 100%; Conversion Costs 50% complete)	**1 month;**
Debtors	**3 months (sales value)**
Creditors	**2 months**
Cash balance required	**1,00,000**
Assume: Sales, production, costs are uniform throughout the cycle.	
Other information:	
Selling Price ₹/unit	**120**
Raw Material	**60% of selling price**
Direct Wages	**20% of selling price**
Overheads (assume no depreciation)	**10% of selling price**

You are required to estimate the working capital requirement with a detailed break up of its constituents. 10

(b) The following information is available from the records of A Ltd.:

Profit after Tax	**₹ 7,91,000**
10% Debentures at par	**₹ 25,00,000**
Operating Leverage	**1.80 times**
Variable cost ratio	**60%**
Corporate Tax rate	**30%**

(i) Prepare an Income Statement for A Ltd.
(ii) Calculate the combined leverage for A Ltd. 5

Answer

8. (a) Working Notes:

1. Production for the year 72,000 units
   Production for the month - 6000 units.

2.

	₹
Selling price per unit	120
Raw material - 60% of 120	72
Direct Wages 20% of 120	24
Overhead 10% of 120	12
Total Cost	108

Working capital Requirements:

Particulars	Basis	Amount (₹)
Current Assets :		
Raw material in store	6000 × 2 × 72 =	8,64,000
Work-in-process R.M.	6000 × 1 × 72 =	4,32,000
Work-in-process Wages	6000 × 1 × 24 × 50% =	72,000
Work-in-process Overhead	6000 × 1 × 12 × 50% =	36,000
Finished Goods	6000 × 3 × 108 =	19,44,000
Total Inventory		33,48,000
Debtors (at sales price)	6000 × 3 × 120 =	21,60,000
Cash		1,00,000
Total current assets		56,08,000
Current Liabilities :		
Creditor	6000 × 2 × 72 =	8,64,000
Total CL		8,64,000

Working capital:
CA-CL = ₹56,08,000 – ₹8,64,000
= ₹ 47,44,000

Question is silent on time lag period of Wages and Overheads. If this is to be considered, then Alternative solution would be as under (assuming Creditors include same –for one month; there may be assumption of even two months- answer will change)

(Alternative)
Working Notes :

1. Production for the year 72,000 units
   Production for the month - 6000 units.

2.

	₹
Selling price per unit	120
Raw material - 60% of 120	72
Direct wages 20% of 120	24
overhead 10% of 120	12
Total cost	108

Working capital Requirements:

PARTICLARS	**BASIS**	**AMOUNT (₹)**
Current Assets:		
Raw material in store	6000×2×72=	8,64,000
Work-in-process - R.M.	6000×1×72=	4,32,000

Work-in-process - Wages	6000×1×24×50%=	72,000
Work-in-process - Overhead	6000×1×12×50%=	36,000
Finished Goods	6000×3×108=	19,44,000
Total inventory		33,48,000
Debtors (at sales price)	6000 x 3 x 120	21,60,000
Cash		1,00,000
Total Current Assets→		**56,08,000**
Current Liabilities:		
Creditors	6000×2×72=	8,64,000
Wages outstanding	6000×1×24=	1,44,000
Overheads outstanding	6000×1×12=	72,000
Total Current Liabilities→		**10,80,000**

Working capital = Current Assets – Current Liabilities

∴Working capital = ₹56,08,000 – ₹ 10,80,000

∴ **Working capital = ₹ 45,28,000**

(b) Income Statement

Details	Amount	Working Note
Sales	62,10,000	Contribution/40 %
Cost of Sale(Variable Cost)	37,26,000	60% of Sales
Contribution (40 %)	24,84,000	(Operating Leverage 1.8 × PBIT 13,80,000)
Less: Fixed Cost	11,04,000	Difference between PBIT and Contribution
Profit Before Interest and Taxes	13,80,000	(PAT/70%) + Interest
Less: Interest	2,50,000	10 % of 25,00,000
PBT	11,30,000	(PAT + Taxes)
Less: Taxes 30 %	3,39,000	(PAT/70x30%)
PAT	7,91,000	(given; starting point)
Combined Leverage	24,84,000/11,30,000 = 2.198 say 2.2	Combined Leverage = Contribution/PBT

Alternative Presentation:

INCOME STATEMENT

Details	**Amount**	**Working Note**
PAT	7,91,000	(given; starting point)
Add: Taxes 30%	3,39,000	{(PAT/70%) X 30%}
PBT	11,30,000	(PAT + Taxes)
Add: Interest	2,50,000	10 % of 25,00,000
Profit Before Interest and Taxes	13,80,000	(PAT/70%) + Interest

Add: Fixed Cost	11,04,000	Difference between PBIT and Contribution
Contribution (40 %)	24,84,000	(Operating Leverage 1.8 x PBIT 13,80,000)
Add: Cost of Sale (Variable Cost)	37,26,000	60 % of Sales
Sales	62,10,000	Contribution/40 %
Combined Leverage	24,84,000/11,30,000 = 2.198 say 2.2	Combined Leverage = Contribution / PBT