

# CA Nitin Guru

Subject- **Financial Management - By CA NITIN GURU**

## **Mock Test – 8 - SOLUTIONS**

Leverages; Investment Decisions

Time: 1 Hour

M.M. – 20 Marks

### **Instructions-**

1. This is a self paced test series, where you can do the test anytime after you complete your chapter and attempt the test and email it to us for checking or self evaluation with help of the solution set provided. For video solutions and test paper to be checked please email us at email id provided below.
2. Answer Sheet is in a single pdf format.
3. First Sheet contains all the information- Name, Registered Email id, Registered Mobile No., Test Number with Subject, website name through which you are watching our class..
4. NO late submission will be entertained.
5. NO answer sheet will be accepted over a chat box or telegram or any other mode other than email.
6. Test solutions should be emailed to [test.canitinguru@gmail.com](mailto:test.canitinguru@gmail.com)
7. Please give us at least 10 working days time to check and send back your test copy.
8. Sir, will record test paper discussion video as well, which you can watch and clarify your doubts if you have any. Solution videos will be available on youtube and please join our telegram channel [@canitinguru](https://t.me/canitinguru) to be updated with any announcement about test discussion.

**Solution 1.**

**[10 Marks]**

**Workings:**

1. Profit volume ratio =  $\frac{\text{Contribution}}{\text{Sales}} \times 100$   
 So, 25 =  $\frac{\text{Contribution}}{\text{Rs } 84,00,000} \times 100$   
 Contribution =  $\frac{\text{Rs } 84,00,000 \times 25}{100} = \text{Rs } 21,00,000$

2. Financial Leverage =  $\frac{\text{EBIT}}{\text{EBT}}$   
 Or, 1.39 =  $\frac{\text{Rs } 13,50,000 \text{ (as calculated above)}}{\text{EBT}}$   
 EBT = Rs 9,71,223

3. Income Statement

	(Rs)
Sales	84,00,000
Less: Variable Cost (Sales - Contribution)	(63,00,000)
Contribution	21,00,000
Less: Fixed Cost	(7,50,000)
EBIT	13,50,000
Less: Interest (EBIT - EBT)	(3,78,777)
EBT	9,71,223
Less: Tax @ 30%	(2,91,367)
Profit after Tax (PAT)	6,79,856

(i) Operating leverage =  $\frac{\text{Contribution}}{\text{Earnings before interest and tax (EBIT)}}$   
 =  $\frac{\text{Rs } 21,00,000}{\text{Rs } 13,50,000} = 1.556 \text{ (approx.)}$

(ii) Combined Leverage = Operating Leverage x Financial Leverage  
 = 1.556 x 1.39 = 2.163 (approx.)  
 Or,  $\frac{\text{Contribution}}{\text{EBT}} = \frac{\text{Rs } 21,00,000}{\text{Rs } 9,71,223} = 2.162 \text{ (approx.)}$

(iii) Earnings per share (EPS)  
 EPS =  $\frac{\text{PAT}}{\text{No. of shares}} = \frac{\text{Rs } 6,79,856}{50,000} = \text{Rs } 13.597$

(iv) Earning Yield  
 =  $\frac{\text{EPS}}{\text{Market price}} \times 100 = \frac{\text{Rs } 13.597}{\text{Rs } 200} \times 100 = 6.80\% \text{ (approx.)}$

Note: The question has been solved considering Financial Leverage given in the question as the base for calculating total interest expense including the interest of 12% Bonds of Rs 30 Lakhs. The question can also be solved in other alternative ways.

**Solution 2.**

**10 Marks**

**Workings:**

(a) Calculation of annual cash flow (Rs in lakh)

Year	Sales	VC	FC	Dep.	Profit	Tax	PAT	Dep.	Cash inflow
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1	172.80	103.68	36	43.75	(10.63)	-	-	43.75	33.12
2	259.20	155.52	36	43.75	23.93	3.99*	19.94	43.75	63.69
3	624.00	374.40	36	43.75	169.85	50.955	118.895	43.75	162.645
4-5	648.00	388.80	36	48.25	174.95	52.485	122.465	48.25	170.715
6-8	432.00	259.20	36	48.25	88.55	26.565	61.985	48.25	110.235

(b) Calculation of Depreciation:

- On initial equipment =  $\frac{\text{Rs } 350 \text{ lakh}}{8 \text{ years}} = 43.75 \text{ lakh}$
- On additional equipment =  $\frac{(\text{Rs } 25 - 2.5) \text{ lakh}}{5 \text{ years}} = 4.5 \text{ lakh}$

(c) \*Calculation of tax in 2nd Year:

	Rs in lakh
Profit for the year	23.93
Less: Set off of unabsorbed depreciation in 1st year	(10.63)
Taxable profit	13.30
Tax @30%	3.99

(d) Calculation of Initial cash outflow

	Rs in lakh
Cost of New Equipment	350
Add: Working Capital	40
Outflow	390

Calculation of NPV

(Rs in lakh)

Year	Cash flows	PV factor @12%	PV of cash- flows	Remark
0	(390)	1.000	(390.00)	Initial equipment cost
1	33.12	0.893	29.57	
2	63.69	0.797	50.76	
3	162.645	0.712	115.80	
3	(25.00)	0.712	(17.80)	Additional equipment cost
4	170.715	0.636	108.57	
5	170.715	0.567	96.79	
6	110.235	0.507	55.89	
7	110.235	0.452	49.83	
8	110.235	0.404	44.53	
8	40.00	0.404	16.16	Release of working capital
Net Present Value			160.10	

Advise: Since the project has a positive NPV, therefore, it should be accepted.