Semester "Spring 2011"

" Corporate Finance (FIN622) "

Assignment No. 01 Marks: 20

SOLUTION

Question # 1: (10 Marks)

AST Company reports the following balance sheet information for 2009.

AST Company
Balance Sheet
As of December 31, 2009

Assets	**2009**
Current Assets	
Cash	Rs. 18,288
Accounts Receivable	44,062
Inventory	104,339
Total	Rs. 166,689
Fixed Assets	
Net Plant & Equipment	582,190
Total Assets	Rs. 748,879
Liabilities & Owners' Equity	
Current Liabilities	
Accounts Payable	Rs. 149,940
Notes Payable	69,246
Total	Rs. 219,186
Long-term Debt	190,000
Owners' Equity	
Common stock and pain-in surplus	Rs. 160,000
Accumulated Retained Earnings	179,693
Total	339,693
Total Liabilities and Owners' Equity	Rs. 748,879

Required:

Calculate the following financial ratios based on the balance sheet given for AST Company:

(a) Current Ratio
(b) Quick Ratio
(c) Cash Ratio
(d) Total Debt Ratio
(e) Debt-Equity Ratio

Solution:

(a) Current Ratio:

Current Ratio = Current Assets / Current Liabilities
Current Ratio = 166,689 / 219,186
Current Ratio = 0.76 times

(b) Quick Ratio:

Quick Ratio = (Current Assets – Inventories) / Current Liabilities
Quick Ratio = (166,689 – 104,339) / 219,186
Quick Ratio = 62,350 / 219,186
Quick Ratio = 0.28 times

(c) Cash Ratio:

Cash Ratio = Cash / Current Liabilities
Cash Ratio = 18,288 / 219,186
Cash Ratio = 0.08 times

(d) Total Debt Ratio:

Total Debt Ratio = (Total Assets – Total Equity) / Total Assets
Total Debt Ratio = (748,879 – 339,693) / 748,879
Total Debt Ratio = 409,186 / 748,879
Total Debt Ratio = 0.55 times

(e) Debt-Equity Ratio:

Debt-Equity Ratio = Total Debt / Total Equity
Debt-Equity Ratio = 409,186 / 339,693
Debt-Equity Ratio = 1.20 times

Question # 2: (10 Marks)

Mr. Aamir is considering two different saving plans. The first plan would have his deposit Rs. 850 every quarter, and he would receive interest at an 8% annual rate, compounded quarterly. Under the second plan he would deposit Rs.1,700 every six months with a rate of interest of 9%, compounded semiannually. Suppose the initial deposits with both the plans are made now.

Required:

(i) What will be the future value of annuity for the first plan at the end of 6 years?

(ii) What will be the future value of annuity for the second plan at the end of 6 years?

(iii) Which plan would be more feasible keeping the value of saving in consideration?

Solution:

(i) Plan 01:

$FVA_1 = P \times [(1 + i)^n - 1 / i)]$
$= 850 \times [(1+.08/4)^{6x4} - 1/.02]$
$= 850 \times [(1+.02)^{24} - 1/.02]$
$= 850 \times [1.60844 - 1/.02]$
$= 850 \times 30.4219$
FVA_1 = Rs. 25,858.62

(ii) Plan 02:

$FVA_2 = P \times [(1 + i)^n - 1 / i)]$
$= 1,700 \times [(1+.09/2)^{6x2} - 1/.045]$
$= 1,700 \times [(1+.045)^{12} - 1/.045]$
$= 1,700 \times [1.69588 - 1/.045]$
$= 1,700 \times 15.4640$
FVA_2 = Rs. 26,288.80

(iii) Conclusion:

The second plan is more feasible for Mr. Aamir as it increases the value of saving more than the first plan.