

Solution:

(1)

To calculate the proceeds from the issuance of the debentures, we note that the bonds are issued at par, which means that the proceeds are the same as the face value of the debentures.

Thus, the company raised \$50 million in debentures.

(2)

The analysis for the same is as follows:

EFFECT ON BALANCE SHEET EQUATION (Amounts are in millions of \$)			
Scenario	Assets =	Liabilities +	Stockholders' Equity
Issuance of debentures	+\$50 (cash)	+\$50 (bonds payable)	
First Semi-annual payments	-\$1.5 (cash)		-\$1.5 (interest expense)
Maturity payment	-\$51.5 (cash)	-\$50 (bonds payable)	-\$1.5 (interest expense)

(3)

The journal entries for the above are as follows:

JOURNAL ENTRIES FOR THE BOND TRANSACTIONS (Amounts are in millions of \$)			
Scenario	Particulars	Debit	Credit
Issuance of debentures	Cash To Bonds Payable	50	50
First semi-annual payments	Interest Expense To Cash	1.5	1.5
Maturity Payment	Interest Expense Bonds Payable To Cash	50 1.5	51.5

(4)

The effect on the accounts has been described already in the above balance sheet equation. You can use them to understand how the bond related accounts get updated.