**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.