The target is : How to calculate the effective rate of interest based on the following two concepts:

1. The actual cost of debt (Paid to the bank)
2. The actual loan (Money) has been used (Utilized by the firm)

The actual cost of debt (paid) = Interest paid + Commencement fee

The actual cost of debt (paid) = Actual used loan (Utilized money) x Effective Interest rate x $\frac{Period\ (M)}{365}$

While:

M = The time period on which we apply the rate (As used to calculate the interest per days)

By solving these two equations together:

Interest paid + Commencement fee = Actual used loan (Utilized money) x Effective Interest rate x $\frac{Period\ (M)}{365}$

Interest paid + Commencement fee = $\frac{(Loan\ Amount - Compensating\ Balance)\ x\ Effective\ Interest\ rate\ x\ M}{365}$

(Interest paid + Commencement fee) x 365 = (Loan - Compensating Balance) x Effective Interest rate x M

By solving this equation:

Effective Interest rate = $\frac{(\ Interest\ paid + Commencement\ fee\ )x\ 365}{(Loan - Compensating\ Balance)\ x\ M}$

$$\text{Effective Interest rat} = \frac{(\ Interest\ paid\ +\ Commencement\ fee\ )}{(Loan\ -\ Compensating\ Balance)}\ x\ \frac{365}{M}$$