

## REDEMPTION BY SINKING FUND

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Under this method of redemption, every year a part of the profit (fixed amount) is set aside and sinking fund (Debenture Redemption Fund) is created. Sinking fund is invested in outside securities. The interest received on such investments along with the amount set aside from profit will again be invested as usual. It continues till the date of redemption of debenture. The investment will be sold and the cash thus realized will be used to repay the debentures. Under this method, sinking fund A/c (Debenture Redemption Fund A/c) and sinking fund investment A/c (Debenture Redemption Fund Investment A/c) will be opened. After the redemption, balance of sinking fund A/c is transferred to general reserve. The following entries are required under this method.

At the end of first year:

- i. For the amount set aside every year  
P & L Appropriation A/c Dr  
    To Sinking Fund A/c
- ii. For investment of sinking fund  
Sinking Fund Investment A/c Dr  
    To Bank A/c

At the end of second and subsequent years:

- i. For interest received on investment  
Bank A/c Dr  
    To Interest on Sinking Fund Investment A/c
  - ii. For transferring interest to sinking fund  
Interest on Sinking Fund Investment A/c Dr  
    To Sinking Fund A/c
  - iii. For annual amount set aside
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- P & L Appropriation A/c Dr  
 To Sinking Fund A/c
- iv. For investment of annual installment and interest  
 Sinking Fund Investment A/c Dr  
 To Bank A/c
- At the end of last year:  
 All the entries except entry (iv) in second and subsequent year should be passed.
- i. For amount realized on sale of investment  
 Bank A/c Dr  
 To Sinking Fund Investment A/c
- ii. For profit on sale of investment  
 Sinking Fund Investment A/c Dr  
 To Sinking Fund A/c  
 (Note: if loss the above entry is reversed)
- iii. For amount due to debenture holders  
 Debentures A/c Dr  
 Premium on redemption A/c Dr (if redemption at premium)  
 To Debenture holders A/c
- iv. For amount paid to debenture holders  
 Debenture holders A/c Dr  
 To Bank A/c
- v. For transfer of balance in sinking fund A/c  
 Sinking Fund A/c Dr  
 To General Reserve A/c

**Illustration 19**

On 1 January 2007, Balu Ltd issued 1000, 6% debentures of Rs.100 each repayable at the end of 4 year at a premium of 10%. It is decided to create a sinking fund for the purpose; the investment is expected to yield 5% net. Sinking fund table shows that Re.0.232012 invested annually amounts to Re.1 at 5% in 4 years. Investments were made in multiples of 100 only. On 31 December 2010, the balance at the bank was Rs.40000 and the investment realized Rs.82000. the debentures were paid off. Give journal entries and show ledger accounts except for debenture interest.

**Solution:**

Amounts annually set aside =  $(100000 + 10\% \text{ premium}) \times 0.232012 = \text{Rs.}25521$

2007	Bank A/c	Dr	100000	
Jan 1	Loss on issue of debentures A/c	Dr	10000	
	To 6% Debentures A/c			100000
	To premium on redemption of debentures A/c			10000
	(issue of 1000, 6% debentures of Rs.100 each redeemable at 10% premium)			
Dec	P & L Appropriation A/c	Dr	25521	
31	To Sinking Fund A/c			25521

	(Transfer of profit to sinking fund)		25500	25500
2008	Sinking Fund Investment A/c Dr To Bank A/c (investment made to nearest multiple of 100)		1275	1275
Dec	Bank A/c Dr To Interest on Sinking Fund Investment A/c (interest received @ 5% on investment)		1275	1275
31	Interest on Sinking Fund Investment A/c Dr To Sinking Fund A/c (transfer of interest to sinking fund)		25521	25521
	P & L Appropriation A/c Dr To Sinking Fund A/c (Transfer of profit to sinking fund)		26800	26800
	Sinking Fund Investment A/c Dr To Bank A/c (investment with interest 25521+1275)		2615	2615
2009	Bank A/c Dr To Interest on Sinking Fund Investment A/c (interest received @ 5% on investment)		2615	2615
Dec	Interest on Sinking Fund Investment A/c Dr To Sinking Fund A/c (transfer of interest to sinking fund)		25521	25521
31	P & L Appropriation A/c Dr To Sinking Fund A/c (Transfer of profit to sinking fund)		28100	28100
	Sinking Fund Investment A/c Dr To Bank A/c (investment with interest 25521+2615)		4020	4020
	Bank A/c Dr To Interest on Sinking Fund Investment A/c (interest received @ 5% on investment)		4020	4020
2010	Interest on Sinking Fund Investment A/c Dr To Sinking Fund A/c (transfer of interest to sinking fund)		25521	25521
Dec	P & L Appropriation A/c Dr To Sinking Fund A/c (Transfer of profit to sinking fund)		82000	82000
31	Bank A/c Dr To Sinking Fund Investment A/c (sale of investment)		1600	

Sinking Fund Investment A/c	Dr			1600
To Sinking Fund A/c (transfer of profit on sale of investment)			100000	
6% Debentures A/c	Dr		10000	
Premium on redemption of debentures A/c	Dr		110000	110000
To Debenture holders A/c (amount due to debenture holders)			110000	110000
Debenture holders A/c	Dr		10000	
To Bank A/c (amount paid to debenture holders)			10000	10000
Sinking Fund A/c	Dr		101594	
To loss on issue of debentures A/c (redemption provided out of sinking fund)			101594	101594
Sinking Fund A/c	Dr			
To General Reserve A/c (transfer of balance in sinking fund A/c to GR)				

6% Debentures A/c

2007			2007		
Dec 31 2008	To Balance c/d	100000	Jan 1 2008	By Bank	100000
Dec 31 2009	To Balance c/d	100000	Jan 1 2009	By Balance b/d	100000
Dec 31 2010	To Balance c/d	100000	Jan 1 2010	By Balance b/d	100000
Dec 31	To Debenture holders A/c	100000	Jan 1	By Balance b/d	100000

Premium on Redemption of debentures A/c

2007			2007		
Dec 31 2008	To Balance c/d	10000	Jan 1 2008	By loss on issue of debentures A/c	10000
Dec 31 2009	To Balance c/d	10000	Jan 1 2009	By Balance b/d	10000
Dec 31 2010	To Balance c/d	10000	Jan 1 2010	By Balance b/d	10000
Dec 31	To Debenture holders A/c	10000	Jan 1	By Balance b/d	10000

Debenture holders A/c

2010			2010		
Dec 31	To Bank A/c	110000	Dec 31	By 6% Debentures A/c	100000
				By premium on redemption of debentures A/c	10000
		110000			110000

Sinking Fund A/c

2007 Dec 31	To Balance c/d	25521	2007 Jan 1	By P&L Appn A/c	25521
				By Balance b/d	25521
	To Balance c/d	52317		By interest on S.F.I	1275
		52317		By P&L Appn A/c	25521
2008 Dec 31			2008 Jan 1	By Balance b/d	52317
	To Balance c/d	80453		By interest on S.F.I	2615
			Dec 31	By P&L Appn A/c	25521
		80453			80453
2009 Dec 31	To loss on issue of debentures	10000	2009 Jan 1	By Balance b/d	80453
	To general reserve (balance transferred)	101594		By interest on S.F.I	4020
		111594	Dec 31	By P&L Appn A/c	25521
				By S.F.I(profit on sale)	1600
					111594

Sinking Fund Investment A/c

2007 Dec 31	To Bank	25500	2007 Dec 31	By Balance c/d	25500
	To Balance b/d	25500			
2008 Jan 1	To Bank	26800	2008 Dec 31	By Balance c/d	52300
		52300			52300
2009 Jan 1	To Balance b/d	28100	2009 Dec 31		80400
	To Bank	80400		By Balance c/d	80400
2010 Jan 1	To Balance b/d	80400	2010 Dec 31		82000
	To Sinking Fund A/c (profit)	1600		By Bank	82000
Dec 31		82000			82000

Bank A/c

2010 Dec 31	To Balance b/d	40000	2010 Dec 31	By Debenture holders A/c	110000
	To S.F.I A/c	82000		By Balance b/d	12000
		122000			122000