

Years	EBDT	Dep	= EBT	↳ Tax @ 35% = PAT	(PAT+Dep) CFAT	Cum CFAT
1	180000	100000	80000	28000	152000	1,52,000
2	220000	100000	120000	42000	178000	3,30,000
3*	190000	100000	90000	31500	158500	4,88,500
4	170000	100000	70000	24500	145500	6,34,000*
5	140000	100000	40000	14000	126000	7,60,000
5					60000	8,20,000
					8,20,000	

$$\text{Dep} = \frac{\text{Cost} - \text{SV}}{\text{Life}}$$

$$= \frac{5,00,000 - 0}{5}$$

$$= 1,00,000$$

$$\text{PBP} = \text{Completed years} + \frac{\text{Required CI}}{\text{CI}}$$

$$= 3 \text{ years} + \frac{(5,60,000 - 4,88,500)}{1,45,500}$$

$$= 3 \text{ years} + \frac{71,500}{1,45,500}$$

$$= 3 \text{ years} + 0.49 \text{ years}$$

$$= 3.49 \text{ years.}$$

Years	CFAT	PVF@ 10%	PV	PVF@ 15%	PV
1	152000	0.909	138168	0.870	132240
2	178000	0.826	147028	0.756	134568
3	158500	0.751	119034	0.658	104293
4	145500	0.683	99377	0.572	83226
5	186000 (126000 + 60000)	0.621	115506	0.497	92442
			619113		546769

$$\text{NPV @ 10\%} = \text{PV of CI} - \text{PV of CO}$$

$$= 619113 - 560000$$

$$= 59113$$

$$\begin{aligned}\text{NPV @ } 15\% &= \text{PV of CI} - \text{PV of CO} \\ &= 546769 - 560000 \\ &= (13231)\end{aligned}$$

$$\text{IRR} = L + \frac{\text{NPV@L}}{\text{NPV@L} - \text{NPV@H}} \times (H - L)$$

$$= 10\% + \frac{59113}{59113 - (-13231)} \times (15\% - 10\%)$$

$$= 10\% + \frac{(59113 \times 5)}{(59113 + 13231)}$$

$$= 10\% + \frac{295565}{72344}$$

$$= 10\% + 4.08\%$$

$$= 14.08\%$$