

HW - Chapter 7 - Capital Budgeting- Q8

(a & b) Computation of NPV at 15% discount rate

Year	Cash flow	DF @ 15%	Present value	DF @ 10%	Present value
1	(10,00,000)	0.870	(8,70,000)	0.909	(9,09,000)
2	2,50,000	0.756	1,89,000	0.826	2,06,500
3	3,00,000	0.658	1,97,400	0.751	2,25,300
4	3,50,000	0.572	2,00,200	0.683	2,39,050
5 - 10	4,00,000	2.163	8,65,200	2.974	11,89,600
PV of Inflows			5,81,800		9,51,450
(-) PV of outflows			(7,00,000)		(7,00,000)
Net Present Value			(1,18,200)		2,51,450
			Accept		Reject

(c) **Calculation of IRR:**

$$\text{IRR} = 10 + 2,51,450 \div 369,650 \times 5 = 13.40\%$$

(d) **Computation of Pay-back period of the project:**

Payback Period = 6 years:

$$- \text{Rs. } 7,00,000 - \text{Rs. } 10,00,000 + \text{Rs. } 2,50,000 + \text{Rs. } 3,00,000 + \text{Rs. } 3,50,000 + \text{Rs.}$$

$$4,00,000 + \text{Rs. } 4,00,000 = 0$$