

Solution

Requirement #01	
Payback Period	
Project A	Project B
=4 + 5000/40,000 =4.125 year	= 3+30,000/45,000 =3.67 year
Requirement #02	
NPV	
$= -205,000 + 60,000/(1.07) + 50,000/(1.07)^2 + 40,000/(1.07)^3 + 50,000/(1.07)^4 + 40,000/(1.07)^5$ $= -205,000 + 60,000/(1.07) + 50,000/1.1449 + 40,000/1.2250 + 50,000/1.3108 + 40,000/1.4026$ $= -205,000 + 56,074 + 43,672 + 32,653 + 38,145 + 28,518$ $= -205,000 + 199,062$ $= \text{Rs. } -5,938$	$-205,000 + 80,000/(1.07) + 50,000/(1.07)^2 + 45,000/(1.07)^3 + 45,000/(1.07)^4 + 45,000/(1.07)^5$ $= -205,000 + 80,000/(1.07) + 50,000/1.1449 + 45,000/1.2250 + 45,000/1.3108 + 45,000/1.4026$ $= -205,000 + 74,766 + 43,672 + 36,735 + 34,330 + 32,083$ $= -205,000 + 221,586$ $= \text{Rs. } 16,586$
Requirement #03	
PI = PV of future cash flows / cash outflow	
PI = 199,062/205,000 = 0.97	PI = 221,586/205,000 = 1.08

Requirement #04

Pay Back Period

Project with lower Payback period will be acceptable, So Project B is acceptable.

NPV

Project with Higher NPV will be acceptable so, Project B will be acceptable

PI

Project with $PI > 1$ will be acceptable. So, project B will be acceptable.