

HW - Chapter 7 - Capital Budgeting- Q3

As we have limited funds, PI will directly get that combination which will lead to highest NPV.

Project	PV of Inflows	PV of Outflows	NPV	PI	Ranking
A	65,400	(50,000)	15,400	1.31	5
B	58,700	(40,000)	18,700	1.47	2
C	35,100	(25,000)	10,100	1.40	3
D	41,200	(30,000)	11,200	1.37	4
E	54,300	(35,000)	19,300	1.55	1

Selection of the projects based on NPV to get the highest NPV.

Project	Ranking	PV of Inflows	PV of Outflows	NPV
E	1	54,300	(35,000)	19,300
B	2	58,700	(40,000)	18,700
C	3	35,100	(25,000)	10,100
D*	4	27,467	(20,000)	47,467
		175,567	1,20,000	55,567

* $41,200 \times 20000 / 30000$ i.e. Proportionate amount has been taken.

If the projects are not divisible then other combinations can be examined as: (not applicable to this question)

	Investment	NPV @ 15%
E + B + C	100,000	48,100
E + B + D	105,000	49,200

In this case E + B + D would be preferable.