

1.) ALIRAN KAS

TAHUN	JUMLAH
0	-10.200
1	4750
2	4700
3	4800
4	5000

2.) a. Payback Period

$$\begin{aligned}
 P &= 4750 + 4700 + (750 / 4800) \\
 &= 1 + 1 + 0,15625 \\
 &= 2,16 \text{ tahun} \\
 &= 2 \text{ tahun } 2 \text{ bulan}
 \end{aligned}$$

b. Discounted Payback Period

$$\begin{aligned}
 DP &= 3893 + 3157 + 2643 + (507 / 2256) \\
 &= 1 + 1 + 1 + 0,2247 \\
 &= 3,2247 \text{ tahun} \\
 &= 3,3 \text{ bulan}
 \end{aligned}$$

c. Accounting Rate of Return

f. Profitability Index

$$PI = \frac{PV \text{ CIF}}{PV \text{ COF}} = \frac{8.056}{3.893} = 2,069$$

PERUSAHAAN A

$$3.) \quad PV = \left[\frac{3362}{(1+0,1)^1} + \frac{3362}{(1+0,1)^2} + \frac{3362}{(1+0,1)^3} + \frac{3362}{(1+0,1)^4} \right] - 10.000$$

$$= 10.655 - 10.000 = 655$$

$$PV \text{ IRR} = \left[\frac{3362}{(1+0,12)^1} + \frac{3362}{(1+0,12)^2} + \frac{3362}{(1+0,12)^3} + \frac{3362}{(1+0,12)^4} \right] - 10.000$$

$$= 10.210 - 10.000 = 210$$

$$IRR = \frac{655}{210} \times 12\% = 0,3742 = 37,42\%$$

IRR > tingkat keuntungan yang diharapkan

$$37,42\% > 10\%$$

PERUSAHAAN B

$$PV = \left[\frac{13.605}{(1+0,1)^4} \right] - 10.000$$

$$= 9.292 - 10.000 = -708$$

$$PV IRR = \left[\frac{13.605}{(1+0,12)^4} \right] - 10.000$$

$$= 8646 - 10.000 = -1354$$

$$IRR = \frac{-708}{-1354} \times 12\% = 0,06274 = 6,274\%$$

PERUSAHAAN C

$$PV = \left[\frac{1000}{(1+0,1)^1} + \frac{3000}{(1+0,1)^2} + \frac{6000}{(1+0,1)^3} + \frac{7000}{(1+0,1)^4} \right] - 10.000 = 12.676 - 10.000$$

$$= 2676$$

$$PV IRR = \left[\frac{1000}{(1+0,12)^1} + \frac{3000}{(1+0,12)^2} + \frac{6000}{(1+0,12)^3} + \frac{7000}{(1+0,12)^4} \right] - 10.000 = 12.001 - 10.000$$

$$= 2.001$$

$$IRR = \frac{2676}{2001} \times 12\% = 0,16047 = 16,04\%$$

(A)

USULAN

A diperoleh NPV 631,985 (v)

B diperoleh NPV -707.601 (x)

C diperoleh NPV 2677410 (v)

yang diteliti adalah proyek A dan B

(B) dengan discount rate 10% NPV terbesar dan memenuhi syarat sebesar 2677410 (C)