**Advance finance for decision makers**

**Assignment-A**

**Net present value (NPV) calculation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Cash flow | Running cost | Net cash flow | Discount factor 10% | Discount cash flow |
| 0 | (£158000) | - | (£158000) | 1 | (£158000) |
| 1 | £43000 | (£8000) | £35000 | 0.909 | £31815 |
| 2 | £50000 | (£8000) | £42000 | 0.826 | £34692 |
| 3 | £56000 | (£8000) | £48000 | 0.751 | £36048 |
| 4 | £59000 | (£8000) | £51000 | 0.683 | £34833 |
| 5 | £47000 | (£8000) | £39000 | 0.621 | £24219 |
|  |  |  |  |  | NPV + £3607 |

**Comment**

Net present value is positive so we will continue to invest at 10%

**Working**

1. = 0.909
2. = 0.826
3. = 0.751
4. = 0.683
5. = 0.621

**Internal rate of return (IRR) calculation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year | Cash flow | Discount factor 10% | Net cash flow | Discount cash flow | Discount factor 15% | Net cash flow |
| 0 | (£158000) | 1 | (£158000) | (£158000) | 1 | £30450 |
| 1 | £43000 | 0.909 | £35000 | £31815 | 0.870 | £31752 |
| 2 | £50000 | 0.826 | £42000 | £34692 | 0.756 | £31584 |
| 3 | £56000 | 0.751 | £48000 | £36048 | 0.658 | £29172 |
| 4 | £59000 | 0.683 | £51000 | £34833 | 0.572 | £19383 |
| 5 | £47000 | 0.621 | £39000 | £24219 | 0.492 | (£158000) |
|  |  |  |  | NPV + £3607 | A | -£15659 |

**Working**

1. = 0.870
2. = 0.756
3. = 0.658
4. = 0.572
5. = 0.497

IRR=A +

IRR=10% +

IRR=10% +

IRR=10% +0.93%

IRR=10.93%

IRR=11%

**Comment**

IRR is 11% We will accept the project at 11% so NPV is zero.