# 國立高雄應用科技大學 100 學年度碩士班招生考試 <br> <br> 金融資訊研究所 

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## 准考證號碼 $\square \square \square \square \square \square \square \square \square$（考生必須填寫）

## 財務管理

試題 共 2 頁，第 1 頁
注意：a．本試題共 4 題，每題 分，共 100 分。
b．作答時不必抄題。
c．考生作答前請詳閲答案卷之考生注意事項。

1．The outlays and futures cash flows for Project A and B are given in the following table．For both projects，the required rate of return is 10 percent．（ 30 points）

| Cash Flows |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Year | 0 | 1 | 2 | 3 | 4 |
| Project A | -100 | 40 | 40 | 40 | 40 |
| Project B | -300 | 130 | 130 | 130 | 130 |

Based on this information，answer the following questions．
1）Calculate the Net Present Value（NPV）for both projects．
2）Calculate the payback period for both projects．
3）Briefly discuss the drawbacks of the payback period．
4）Calculate the discounted payback period for both projects．
5）Calculate the profitability index for both projects．
6）Discuss your decision rule for NPV and PI，respectively．
2. Assume that a company has a fixed $\$ 1,000$ capital budget and has the opportunity to invest in four projects. (20 points)

1) Consider the following four projects. Which projects should be chosen?

|  | Investment Outlay | NPV | PI |
| :--- | :---: | :---: | :---: |
| Project 1 | 600 | 200 | 1.33 |
| Project 2 | 150 | 60 | 1.4 |
| Project 3 | 250 | -70 | 0.72 |
| Project 4 | 300 | -130 | 0.57 |

2) If the projects considered are as follows instead. Which projects should be chosen?

|  | Investment Outlay | NPV | PI |
| :--- | :---: | :---: | :---: |
| Project A | 500 | 170 | 1.34 |
| Project B | 150 | 50 | 1.33 |
| Project C | 250 | 70 | 1.28 |
| Project D | 600 | 250 | 1.42 |

3. 4) Explain "Clientele effect" and "signaling effect". (30 points)
2) Discuss the "MM irrelevant".
4. The XYZ Company plans to purchase lands through debt or equity financing. The company has a cost of capital of 8 percent, a debt to equity ratio of 0.4 , debt costs of 5 percent, and a tax rate of 30 percent. ( 20 points)
1) What is the company's cost of equity with and without the consideration of taxes?
2) What relationship between tax and the cost of equity can we infer from the answer 4.1) above?
