# Mock Test of Corporate Finance 2024

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Section A: Multiple Choice Questions**

You borrow 6,000 3-year loan at 5% from a bank. You are using the amortization schedule of Fixed Payment Schedule. Answer questions 1 and 2.

1. What is the annuity payment if the payment is per annum?

A. Around 2000

B. Around 2203

C. Around 1998

D. None of the above

1. What is the amount of principal that you pay at year 2 if the payment is per annum?
2. 2000
3. 1903.25
4. 1998.41
5. 2203.25
6. If the 5% is quoted annual percentage rate (APR), and the bank request you to make monthly payment, what is EAR (effective annual rate)?

A. 5.09%

B. 5%

C. 5.12%

D. 5.15%

1. Suppose you invest $250,000 at 6% per year, how long does it take before the investment turns $300,000? Identify the Excel function.

A. NPER (0.06,250000,0,300000)

B. NPER (0.06,0, - 250000,300000)

C. NPER (0.06,0,0,300000)

D. NPER (0.06,0,250000,300000)

1. ABC Inc. has an investment project that produces sales revenues of $135m (with no costs of goods sold) and net income of $40m, and operating cash flows of $54m, pay dividends of $12m, have accounts receivables equivalent to 15% of sales, no inventory and the after-tax interest cost is $5m this year. What is ABC’s change of net working capital (ΔNWC) this year?
2. 34.25m
3. 29.25m
4. 14m
5. 39.25m

**Section B consists of 2 Questions. Show the steps you use to solve problems.**

Q1. Consider the following two mutually exclusive projects:

Whichever project you choose with the following criteria, if you will require a 15% return on your investment.

1. If you apply the payback criterion, which project will you choose?
2. If you apply the NPV criterion, which project will you choose?
3. What is the NPV for Project A when the discount rate is 28%, what is its NPV when the discount rate is 26%. And then use Trial and Error to estimate its IRR for project A.

|  |  |  |
| --- | --- | --- |
| Year | Cash flow (A) | Cash flow (B) |
| 0 | -252,000 | -24,000 |
| 1 | 18,000 | 14,400 |
| 2 | 36,000 | 12,600 |
| 3 | 38,400 | 11,400 |
| 4 | 510,000 | 9,800 |

Q2. You are considering an investment project with an estimated life of 2 years with following information:

Revenue Estimates Sales = 100 units/year Per Unit Price = $260

There are no R&D or overhead costs

Cost Estimates Per Unit Cost = $100

Accounts Receivables is equal to 10% of sales and Accounts Payables is equal to 10% of costs of goods sold.

Up-Front New Equipment = $15,000; The Expected life of the new equipment is 2 years and straight-line depreciation method is used. The required rate of return is 10% and the corporate tax rate is 35%. Present the capital budgeting decision in a Table including the following information:

1. What is the unlevered net income for year 1 and year 2?
2. What are the free cash flows for year 0, year 1, year 2, and year 3?
3. What is the NPV of the project?

**Formula Sheet of Excel:**

Payment per period: PMT (rate,nper,pv,[fv],[type])

Present value: PV (rate, nper, pmt,[fv],[type])

Future value: FV (rate, nper, [pmt], [pv], [type])

Number of payment: NPER (rate, pmt, pv, [fv], [type])

Net Present Value: NPV (rate, value1, value 2,…)

Internal rate of return: IRR(value 1, value 2,.)