

**KINGDOM OF BAHRAIN
MINISTRY OF EDUCATION**

نموذج امتحان محاكي لنهاية الفصل الدراسي الثاني للتعليم الثانوي للعام الدراسي 2024/2023

COURSE NAME : Financial Math
COURSE CODE : FIN316

TRACK : Unified
TIME : 2 Hours

Read all the instruction for each question carefully before answering questions.

First Part: compound Interest

Question One:

Sakeena Ahmed deposited BD2,600 in a bank at 12% annually compounded quarterly- Find future value at the end of 5 years and 9 months and find the compound interest.

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Question Tow:

Find the future value that Saad will get if he saves BD2,000 in a bank for 10 years at changing rate, as following: at 5% annually for the first 5 years, 4.6% annually for the sixth year and 5.25 % annually for the rest years?

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By student: Qassim Hassan Almudaweb

Third Part: Capital Budgeting Decision

Question One (A - b - c):

The following A project " their cash flow and using 8% discount rate.

Cash Flow	Project A
Cost (Cash Outflow)	BD20,000
Cash inflow year 1	BD6,000
Cash inflow year 2	BD6,000
Cash inflow year 3	BD6,000
Cash inflow year 4	BD6,000

A - Payback Period Method.

Projects A: (Fixed Cash Inflow):

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b- Net Present Value Method.

Projects A: (Fixed Cash Inflow):

Year	Cash flow (CF)	$X (1+i)^{-n}$	PV of cash flow
0			
1			
2			
3			
4			
Net present value (NPV)			

c- Profitability Index Method.

PI project A =

Fourth Part: Break-even Analysis

Question One:

Abdulla Company expects to earn BD48,000 next year. Sales will be BD370,000, its average product sells for BD74 per unit. The variable cost per unit is BD50.

Required:

- 1- What are the company's fixed costs expected to be next year?
- 2- Calculate the company's break-even point in units and sales revenues for break-even?

Question Tow:

ABC Company sold a computer at BD20 per unit and it had variable cost BD12 per unit. The total annual fixed cost is BD160,000.

Required:

- 1- How many units must be sold to earn an operating income of BD40,000.
- 2- Compute sale revenue needed to earn an operating income of BD40,000.
- 3- If the company sold 30,000 units, what would be the company's profit or loss?

Fiveth Part: Financial Ratio Analysis

Question One:

The balance sheet and income statement for MRG Company are as follows.

Balance Sheet	BD 000
Cash	500
Account Receivable	2,000
Inventories	1,000
Current Assets	3,500
Fixed Assets	4,500
Total Assets	8,000
Current Liabilities	2,000
Long-term debt	2,000
Owners' Equity	4,000
Total Liabilities and equity	8,000

Income Statement	BD 000
Net Sales (Revenues)	8,000
- Cost of Goods Sold	3,200
Gross Profit	4,800
- Operating Expenses	800
Operating Income	4,000
Interest Expenses	1,000
Profits before taxes	3,000
Tax (5%)	150
Net Income	2,850

No	Required	
1	Gross profit margin %
2	Profit margin %
3	Working Capital
4	Capital Employed.
5	Return on capital employed
6	Current ratio.
7	Acid test ratio (Quick Ratio).

By student: Qassim Hassan Almudaweb