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|---|---|
| **Started on** | Tuesday, 26 January 2021, 12:24 PM |
| **State** | Finished |
| **Completed on** | Tuesday, 26 January 2021, 5:29 PM |
| **Time taken** | 5 hours 5 mins |
| **Grade** | **100.00** out of 100.00 |

**Question 1**

Correct

Mark 7.00 out of 7.00

A series of equal quarterly deposits of $1000 extends over a period of three years. It is desired to compute the future worth of this quarterly deposit series at 12% compounded monthly. Which of the following equations is correct?

Select one:

- a. F = 4 ($1000) (F/A, 12%, 3). cross out
- b. F = $1000 (F/A, 3%, 12). cross out
- c. F = $1000 (F/A, 1%, 12). cross out
- d. F = $1000 (F/A, 3.03%, 12). ✔ cross out

**Question 2**

Correct

Mark 21.00 out of 21.00

4.23

What equal series of payments must be paid into a sinking fund to accumulate the following amount?

(a) $21000 in 10 years at 6.45% compounded semiannually when payments are semiannual.

A=$ 763.81 ✔ (Keep 2 decimal places in results)

(b) $9000 in 15 years at 9.35% compounded quarterly when payments are quarterly.

A=$ 70.12 ✔ (Keep 2 decimal places in results)

(c) $24000 in 5 years at 6.55% compounded monthly when payments are monthly.

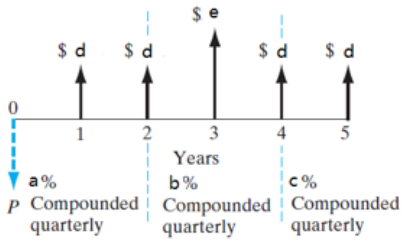
A=$ 339.15 ✔ (Keep 2 decimal places in results)

**Question 3**

Correct

Mark 21.00 out of 21.00

Consider the accompanying cash flow diagram, which represents three different interest rates applicable over the five-year time span shown. a=6%, b= 10%, c= 8%, d= $2000, and e= $3000




(a) Calculate the equivalent amount P at the present time. (Keep 2 decimal places in results)

P=$ 8875.83 ✔

(b) Calculate the single-payment equivalent F at the end of year 5. (Keep 2 decimal places in results)

F= 13186.48 ✔

(c) Calculate the equal-payment-series cash flow A that runs from n=1 to n=5. (Keep 2 decimal places in results)

A= 2199.27 ✔

**Question 4**

Correct

Mark 15.00 out of 15.00

Q4.63

Katerina Unger wants to purchase a set of furniture worth $3000. She plans to finance the furniture for two years. The furniture store tells Katerina that the interest rate is only 1% per month, and her monthly payment is computed as follows:

Installment period=24 months

Interest-24(0.01)($3000)=$720

Loan processing fee=$25

Total amount owed=$3000+$720+$25=$3745

Monthly payment=$3745/24=$156.04 per month

(a) What is the annual effective interest rate that Katerina is paying for her loan transaction? What is the nominal interest(annual percentage rate) for the loan?

In (a), the Effective annual rate= 24.69 ✔ % (Keep 2 decimal places in results)

In (a), the Nominal annual rate= 22.27 ✔ % (Keep 2 decimal places in results)

(b) Katerina bought the furniture and made 12 monthly payments. Now she wants to pay off the remaining installments in one lump sum (at the end of 12 months). How much does she owe the furniture store?

In (b), she owes the furniture store $ 1664.85 ✔ (Keep 2 decimal places in results)

**Question 5**

Correct

Mark 21.00 out of 21.00

Emily Wang financed her office furniture from a furniture dealer. The dealer's terms allowed her to defer payments (including interest) for six months and to make 36 equal end-of-month payments thereafter. The original note was for $15000, with interest at 9% compounded monthly. After 26 monthly payments, Emily found herself in a financial bind and went to a loan company for assistance. The loan company offered to pay her debts in one lump sum if she would pay the company $186 per month for the next 30 months.

(a) Determine the original monthly payment made to the furniture store.

In (a), the monthly payment should be $ 498.87 ✔ (Keep 2 decimal places in results)

(b) Determine the lump-sum payoff amount the loan company will make.

In (b), the amount is $ 4788.92 ✔ (Keep 2 decimal places in results)

(c) What annual rate of interest is the loan company charging on this loan? (Effective Annual Rate)

In (c), the interest rate= 12.90 ✔ % (Keep 2 decimal places in results)

**Question 6**

Correct

Mark 15.00 out of 15.00

Suppose Ford sold an issue of bonds with a 15-year maturity, a $1100 par value, a 13% coupon rate, and semiannual interest payments.

(a) Two years after the bonds were issued, the going rate of interest on bonds such as these fell to 4%. At what price would the bonds sell?

Sell price = $ 2095.99 ✔

(keep 2 decimal places)

(b) Suppose that, two years after the bonds' issue, the going interest rate had risen to 15%. At what price would the bonds sell?

Sell price = $ 975.71 ✔

(keep 2 decimal places)

(c) Today, the closing price of the bond is $783.58. What is the current yield?

Current yield (semiannually) = 9.12 ✔ %

◄ Assignment #1 answer

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Midterm #1 Review Questions ►