ASSIGNMENT 3 (COMPULSORY)

Due Date	Unique Number
18 September 2017	743987

Submit your answers online through myUnisa. No extensions will be granted for submission of this assignment. ***NO*** *manual or posted submissions will be allowed.*

Question 1

If R2 000 is borrowed for one-half year at a simple interest rate of 12% per year, what is the future value of the loan at the end of the half-year?

1) R1 785.71
2) R1 886.79
3) R2 120.00
4) R2 240.00
5) None of the above

Question 2

Thabo bought Gijima-Electric stock for R6 125.00 and after 6 months, the value of her shares had risen by R138.00 and dividends totalling R144.14 had been paid. Find the simple interest rate she earned on this investment if she sold the stock at the end of the 6 months.

1) 4.50%
2) 4.61%
3) 4.70%
4) 9.21%
5) None of the above

Question 3

If R8 000 is invested at 6% simple interest for 9 months, find the future value of the investment.

1) R8 240
2) R8 360
3) R8 480
4) R8 720
5) None of the above

Question 4

If R3 000 is invested for 4 years at 9% compounded annually, how much interest is earned?

1) R1 080.00
2) R1 234.74
3) R1 294.22
4) R1 299.79
5) None of the above

Question 5

What amount must be invested at 6.5%, compounded quartely, so that it will be worth R25 000 after 8 years?

1) R14 883.01
2) R14 925.27
3) R14 986.46
4) R14 863.01
5) None of the above

Question 6

If R5 000 is invested at 6% compounded monthly for 5 years, find the future value of the investment.

1) R6 719.58
2) R6 749.13
3) R6 744.25
4) R6 749.29
5) None of the above

Question 7

How long does it take an investment of R10 000 to double if it is invested at 8%, compounded daily?

1) 8.70 years
2) 8.69 years
3) 8.67 years
4) 8.83 years
5) None of the above

Question 8

Jenny invests R2 000 at the end of each of 8 years in an account that earns 10%, compounded annually. After the initial 8 years, no additional contributions are made, but the investment continues to earn 10%, compounded annually, for 36 more years (until Jenny is age 65). How much does Jenny have at age 65?

1) R530 112.61
2) R707 028.03
3) R1 305 281.52
4) R598 253.61
5) None of the above

Question 9

Suppose R100 is deposited at the end of each month for 3 years in an account that pays 6%, compounded monthly. Find the future value.

1) R4 287.66
2) R3 933.61
3) R4 038.05
4) R3 953.28
5) None of the above

Question 10

A small business invests R10 000 at the end of each month in an account that earns 6% compounded monthly. How long will it take until the business has R1 000 000 toward the purchase of its own office building? (Round your answer up to the next integer)

1) 79 months
2) 82 months
3) 77 months
4) 84 months
5) None of the above

Question 11

Find the lump sum that one must invest in an annuity in order to receive R1 000 at the end of each month for the next 16 years, if the annuity pays 9%, compounded monthly.

1) R151 603.71
2) R99 750.72
3) R101 572.77
4) R426 410.43
5) None of the above

Question 12

Find the present value of an annuity that pays R2 000 at the end of each 3-month period for 3.5 years and money is worth 4%, compounded quarterly.

1) R26 007.41
2) R29 428.12
3) R32 185.28
4) R29 894.84
5) None of the above

Question 13

What lump sum will be needed to generate payments of R5 000 at the end of each quarter for a period of 5 years if money is worth 7%, compounded quarterly?

1) R87 774.26
2) R85 230.28
3) R83 764.41
4) R82 003.95
5) None of the above

Question 14

Jack and Jill have R30 000 for a down payment, and their budget can accommodate a monthly mortgage payment of R850.00. What is the most expensive home they can buy if they can borrow money for 30 years at 7.8%, compounded monthly?

1) R131 378.02
2) R147 030.62
3) R133 725.88
4) R148 076.79
5) None of the above

Question 15

Find the amount of each payment if a debt of R25 000 is to be amortized with equal quarterly payments over 6 years, and money is worth 7%, compounded quarterly.

1) R847.14
2) R873.72
3) R1 284.64
4) R1 311.22
5) None of the above

Question 16

A new college graduate determines that she can afford a car payment of R350 per month. If the car manufacturer is offering a special 2.1% financing rate, compounded monthly for 4 years, how much can she borrow and still have a R350 monthly payment?

1) R15 953.73
2) R16 100.25
3) R17 336.65
4) R17 509.81
5) None of the above

Question 17

A 42-month car loan has monthly payments of R411.35. If the interest rate is 8.1%, compounded monthly, find the unpaid balance immediately after the 24th payment.

1) R4 295.12
2) R6 950.13
3) R3 828.53
4) R9 086.01
5) None of the above

Questions 18 to 20 are based on the information below:

A man buys a house for R200 000. He makes a R50 000 down payment and agrees to amortize the rest of the debt with quarterly payments over the next 10 years. Interest on the debt is 12%, compounded quarterly.

Question 18

What is the size of the quarterly payments?

1) R6 489.36
2) R6 636.91
3) R8 652.48
4) R8 849.21
5) None of the above

Question 19

What is the total amount of the payments?

1) R346 099.20

2) R265 476.40
3) R259 574.40
4) R353 968.40
5) None of the above

Question 20

What is the total amount of interest paid?

1) R146 099.20
2) R109 574.40
3) R153 964.40
4) R115 476.40
5) None of the above