



**UNIVERSITI TEKNOLOGI MARA
TEST**

COURSE	:	BUSSINESS MATHEMATICS
COURSE CODE	:	MAT402
EXAMINATION	:	MAC 2022 - JULY 2022
TIME	:	2 HOURS

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of EIGHT (8) questions.
2. Answer ALL the questions.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

This test paper consists of 2 printed pages

QUESTION 1

Ammara borrowed RM X and agreed to pay back RM5,000 in 5 years on loan at 10% interest compounded semi-annually. Find X.

(4 marks)

QUESTION 2

Farah deposited RM3,000 in a saving account which pays 10% compounded monthly. Eight months after her first deposit, she saved another RM2,000 into the same account. Calculate the amount in her saving account at the end of fourth year.

(8 marks)

QUESTION 3

Nizam took a loan of RM15,000 from a bank at an interest rate of $k\%$ compounded every two months. The amount to be paid after 4 years 6 months is RM21, 448.86. Find the value of k .

(6 marks)

QUESTION 4

Damia wants to invest RM12,000 in an account for 5 years. She has two options to consider:

Bank A offers an interest rate of 4.9% compounded quarterly.

Bank B offers an interest rate of 4.5% compounded every two months.

Calculate the maturity amount of each bank. Hence, determine which bank she should invest in.

(7 marks)

QUESTION 5

Diana purchased a washing machine at RM3,800 cash by instalment. She was charged an interest of 17% based on reducing balance. She must pay a down payment of RM600 and equal weekly payments for 1.5 years. Find the amount of interest charged by using the constant ratio formula.

(5 marks)

QUESTION 6

Mikhail purchased 3 bedroom sets for RM35,000 through an installment plan. He paid 10% down payment and the balance is to be paid monthly for 9 years. If the interest charged is 4% flat rate, calculate the total interest charged.

(5 marks)

QUESTION 7

Syafiq bought a piano through an installment plan. He paid RM500 as a down payment and 24 monthly payments of RM320 each. The interest charged was 8% based on the original balance. Calculate the interest charged for the piano.

(7 marks)

QUESTION 8

Sandy bought a television through an installment plan. The cash price of the television is RM4,000. She paid RM550 as a down payment. The balance was settle by making 20 monthly payments of RM190. If the interest rate charged was 10% per annum on the original balance, find

a) the installment price

(5 marks)

b) the outstanding balance after the 10th payment using the Rule of 78.

(3 marks)