

**UNIVERSITI TEKNOLOGI MARA**

**MAT402 - BUSINESS MATHEMATICS**

**TEST 1**

**9.00 - 9.30 AM (30 Minutes)**

**22 MAY 2020**

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| **STUDENT’S NAME** |  |
| **STUDENT’S ID** |  |
| **GROUP** | **KAM2281A** |

**INSTRUCTIONS TO STUDENTS**

1. This question paper consists of **TWO (2)** questions.

2. Answer **ALL** questions.

3. The test must be taken completely **ALONE**. Showing it or discussing it with anyone is

 prohibited.

4. Type your name, student ID and group in the space provided above.

5. Please write your answer on separate papers using **a pen**.

6. Make sure your answers are **readable**.

7. **Insert your answers in the Google Document** as instructed in the Demo Video shared on my YouTube Channel.

8. Keep close track of your allocated time. In the event of low internet connectivity, you

 are given **not more than 10 minutes** (9.30 -9.40 am) to submit your work.

9. **Late submission (after 9.40 am) will not be entertained.**

**QUESTION 1**

17 years ago, Ahmad bought a terrace house that cost RM110,000 cash price after paying a down payment of 10% of the cash price. The balance was then paid through a monthly repayment of RM642.11 at an interest rate of 6.75% compounded monthly for a period of ***t*** years. Determine the value of ***t***. (5 marks)

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| Insert your solution HERE. |

**QUESTION 2**

Ahmad bought a life insurance annuity saving premium for his new-born daughter valued at RM300,000 when it matures in 20 years’ time. The insurance is paid by making monthly repayment or contribution at a profit rate of 8% compounded monthly.

a) Calculate the monthly payment or contribution. (4 marks)

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| Insert your solution HERE. |

b) Find the amount of interest earned. (2 marks)

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| Insert your solution HERE. |

c) If Ahmad plans to settle the monthly payment or contribution earlier exactly after making the 160th payment, how much should he pay on the next payment to settle the remaining debt. (4 marks)

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| Insert your solution HERE. |

**END OF QUESTION PAPER**