Universiti Malaysia PAHANG Engineering • Technology • Creativity **FACULTY OF INDUSTRIAL SCIENCES & TECHNOLOGY**	**SUBJECT:** MATHEMATICS FOR MANAGEMENT			**MARKS**: /10
	CODE: BUM1123	**TOPIC:** COMPOUND INTEREST		
	ASSESSMENT: QUIZ	**NO:** 5	**DUE/DURATION:** 10 MINUTES	
NAME:				

1. Today Mary save in her bank account RM5,000 which gives 6% compounded semi-annually. She intends to withdraw all her savings amount at the end of five years. If after three years she withdraws RM 2,000, find the amount in her account at the end of five years.

(7 Marks)

2. Find the amount of money to be invested now with 6% interest compounded monthly so as to accumulate RM 8,888 in three years.

(3 Marks)

No	Answer	Marks
1	P = RM 5,000 i = 0.06 a = 2 n = 5	**A1**
	$S=P\left(1+\frac{i}{a}\right)^{nxa}$	**M1**
	At the end of 3 years $S=5000\left(1+\frac{0.06}{2}\right)^{3x2}$ = RM 5,970.26	**A1**
	After 3 years, Mary withdraw RM 2,000 RM 5,970.26 – RM 2,000 = RM3,970.26	**M1A1**
	At the end of 5 years $S=3970.26\left(1+\frac{0.06}{2}\right)^{2x2}$	**M1**
	= RM 4468.56	**A1**
	The amount in the account at the end of 5 years is RM 4468.56	
		7 Marks
2	S = RM 8,888 i = 0.06 a = 12 n = 3	**A1**
	$S=P\left(1+\frac{i}{a}\right)^{-nxa}$	**M1**
	$=8888\left(1+\frac{0.06}{12}\right)^{-3x12}$ =RM 7,427.21	**A1**
		3 Marks