

PART A																
QUESTION	SUGGESTED SOLUTION	MARKS														
1	<p>Exact time from 27 June 2018 until 10 October 2018:</p> <table border="1"> <thead> <tr> <th>MONTH</th> <th>NO. OF DAYS</th> </tr> </thead> <tbody> <tr> <td>June</td> <td>30 - 27 = 3</td> </tr> <tr> <td>July</td> <td>31</td> </tr> <tr> <td>August</td> <td>31</td> </tr> <tr> <td>September</td> <td>30</td> </tr> <tr> <td>October</td> <td>10</td> </tr> <tr> <td>TOTAL</td> <td>105 days</td> </tr> </tbody> </table> <p> $S = P(1 + rt)$ $= 3000 \left[1 + (0.035) \left(\frac{105}{360} \right) \right]$ ✓✓ $\therefore r = \text{RM}3030.63$ ✓ </p>	MONTH	NO. OF DAYS	June	30 - 27 = 3	July	31	August	31	September	30	October	10	TOTAL	105 days	5
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June	30 - 27 = 3															
July	31															
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TOTAL	105 days															
2	<p> $S = P(1 + rt)$ $1560 = P \left[1 + (0.04) \left(\frac{120}{360} \right) \right]$ ✓✓✓ $P = \frac{1560}{1 + (0.04) \left(\frac{120}{360} \right)}$ ✓ $\therefore P = \text{RM}1539.47$ ✓ </p>	5														
3	<p> $S = \text{RM}8386.65, t = 8, m = 6$ $i = \frac{0.065}{6}$ ✓ $n = 8 \times 6$ ✓ $S = P(1 + i)^n$ $8386.65 = Y \left(1 + \frac{0.065}{6} \right)^{8 \times 6}$ ✓✓ $\therefore Y = \text{RM}5000$ ✓ </p>	5														
4	<p> $R = \text{RM}215, i = \frac{0.06}{12} = 0.005, n = 12 \times 5.5 = 66$ $S = R \left[\frac{(1 + i)^n - 1}{i} \right]$ ✓ $= 215 \left[\frac{\left(1 + \frac{0.06}{12} \right)^{(5.5 \times 12)} - 1}{\frac{0.06}{12}} \right]$ ✓✓✓ $\therefore S = \text{RM}16762.45$ ✓ </p> <p>Formula. R, i, n. (3)</p>	5														

<p>5</p>	<p>CP = RM3000, DP = RM500, $r = 5\% = 0.05$, $n = 12 \times 2 = 24$ $B = CP - DP = RM3000 - RM500 = RM2500$ ✓</p> <p>By using original balance method: $I = Brt$ $I = 2500 \times 0.05 \times 2$ ✓ $I = RM250$ ✓</p> <p>$R = \frac{B+I}{n}$ $R = \frac{2500 + 250}{24}$ ✓ $\therefore R = RM114.58$ ✓</p> <p><i>CRM</i> max @ marks. AT I value.</p>	<p>5</p>									
<p>6</p>	<table border="0"> <tr> <td>July (31 - 20)</td> <td>11</td> <td></td> </tr> <tr> <td>August</td> <td>15</td> <td></td> </tr> <tr> <td>Total</td> <td><u>26</u></td> <td>✓</td> </tr> </table> <p>Term 26 days, therefore cash discount is <u>2%</u>. ✓ ✓</p> <p>Total payment = $NP(1 - cd) + \text{other charge}$ $= 3700(1 - 0.02) + 150$ ✓ $= RM 3776$ ✓</p>	July (31 - 20)	11		August	15		Total	<u>26</u>	✓	<p>5</p>
July (31 - 20)	11										
August	15										
Total	<u>26</u>	✓									
<p>7</p>	<p>$S = \frac{2550}{30} = RM85$ ✓</p> <p>$S = C + M$ $85 = C + 0.25C$ ✓ $C = RM68$ ✓</p> <p>Total Cost, $C_{30} = 68 \times 30$ ✓ $\therefore C_{30} = RM2040$ ✓</p> <p>$S = C + M$ $2550 = C + 0.25C$ $C = \frac{2550}{1.25}$ $= 2040$</p>	<p>5</p>									
<p>8</p>	<p>$r = 1 - \sqrt[n]{\frac{S}{C}}$ $r = 1 - \sqrt[16]{\frac{4000}{38000}}$ ✓ $r = 0.1313$ ✓</p> <p>$BV_n = C(1-r)^n$ ✗ $BV_6 = 38000(1 - 0.1313)^6$ ✓ $\therefore BV_6 = RM16330.61$ ✓</p>	<p>5</p>									
<p>TOTAL MARKS (PART A) = 40 MARKS</p>											

PART B		
QUESTION	SUGGESTED SOLUTION	MARKS
1 a) i)	$d = 1 - [(1 - d_1)(1 - d_2)]$ $= 1 - [(1 - 0.1)(1 - 0.08)] \quad \checkmark\checkmark$ $= 1 - [(0.9)(0.92)]$ $= 0.172$ $\therefore d \approx \underline{17.2\%} \quad \checkmark$	3
1 a) ii)	<p>23 April 2017 + 20 days = 43 - 30 = 13 \checkmark</p> <p>\therefore Last date: 13 May 2017 \checkmark</p>	2
1 a) iii)	<p>LP = 120 shawls x RM10.00 = <u>RM1,200</u> \checkmark</p> <p>NP = LP (1 - d) (1 - cd)</p> $= 1200 (1 - 0.172)(1 - 0.03) \quad \checkmark\checkmark$ <p>\therefore NP = <u>RM963.79</u> \checkmark</p> <p style="text-align: right;"><i>ff note max ②</i></p>	4
1 b) i)	<p>C = RM150</p> <p>OE = 0.2C = 0.2 (150) = RM30</p> <p>NP = 0.1R</p> <p><u>R = C + NP + OE</u></p> $R = 150 + 0.1R + 30 \quad \checkmark\checkmark\checkmark$ $R = 0.1R + 180$ $1R - 0.1R = 180 \quad \checkmark$ $0.9R = 180$ $R = \underline{RM200} \quad \checkmark$ <p>\therefore Total selling price = RM200 x 40 = <u>RM8000</u> \checkmark</p>	6
1 b) ii)	<p>BEP = C + OE</p> $= 150 + 0.2(150) \quad \checkmark\checkmark$ $= 150 + 30$ $= \underline{RM180.00} \quad \checkmark$ <p>$\%MD_{\max} = \frac{SP - BEP}{SP} \times 100\%$</p> $= \frac{200 - 180}{200} \times 100\% \quad \checkmark$ $= 10\% \quad \checkmark$	5
TOTAL MARKS (Q1) = 20 MARKS		

<p>2 a)</p>	<p>$t = 110 - 58 = 52$ days ✓ Proceeds = $S(1 - dt)$ ✓ $10000 = S(1 - 0.03(\frac{52}{360}))$ ✓✓✓ $\therefore S = \text{RM}10043.52$ ✓</p>	<p>6</p>
<p>2 b)</p>	<p>Amount after 3 years: $n = 4 \times 3 = 12$ $S = P(1 + i)^n$ $= 3000 \left(1 + \frac{0.045}{4}\right)^{12}$ ✓✓✓ $= \text{RM}3431.02$ ✓ Amount for the next 5 years: $n = 4 \times 5 = 20$ $S = P(1 + i)^n$ $= \underset{\text{(F.T.)}}{(3431.02 + 1500)} \left(1 + \frac{0.045}{4}\right)^{20}$ ✓✓✓ $\therefore S = \text{RM}6167.50$ ✓</p>	<p>8</p>
<p>2 c)</p>	<p>$C = 50000, n = 12, S = 9000$ Annual Depreciation = $\frac{C - S}{n}$ $= \frac{50000 - 9000}{12}$ ✓ $= \text{RM}3416.67$ ✓ Accumulated. Annual Depreciation, $AD_n = n \times \text{Depreciation}$ $AD_6 = 6 \times 3416.67$ ✓ $AD_6 = \text{RM}20500.02$ ✓ $BV_6 = C - AD_6$ $BV_6 = 50000 - 20500.02$ ✓ $\therefore BV_6 = \text{RM}29499.98$ ✓</p>	<p>6</p>
<p>TOTAL MARKS (Q2) = 20 MARKS</p>		
<p>3 a) i)</p>	<p>$CP = 25000$ $DP = 5000$ $B = CP - DP$ $= 25000 - 5000$ $= 20000$ ✓ $r = \frac{2ml}{B(n+1)}$ $0.04 = \frac{2(12)l}{20000(30+1)}$ ✓✓ $l = \text{RM}1033.33$ ✓</p>	<p>4</p>

<p>3 a) ii)</p>	$\text{Monthly payment} = \frac{B + I}{n}$ $= \frac{20000 + 1033.33}{30} \checkmark\checkmark$ $= \underline{\underline{RM701.11}} \checkmark$	<p>3</p>
<p>3 a) iii)</p>	$k = 30 - 20 = 10 \checkmark$ $\text{OPB} = (k \times R) - I \left(\frac{k(k+1)}{n(n+1)} \right)$ $\text{OPB} = (10 \times 701.11) - 1033.33 \left(\frac{10(10+1)}{30(30+1)} \right) \checkmark\checkmark\checkmark$ $\therefore \text{OPB} = \underline{\underline{RM6888.88}} \checkmark$	<p>5</p>
<p>3 b) i)</p>	$\text{CP} = 6500, \text{DP} = 500, i = \frac{0.055}{12}, n = 12 \times 4 = 48$ $A = \text{CP} - \text{DP}$ $A = 6500 - 500$ $A = \underline{\underline{RM6000}} \checkmark$ $A = R \left[\frac{1 - (1+i)^{-n}}{i} \right]$ $6000 = R \left[\frac{1 - \left(1 + \frac{0.055}{12}\right)^{-48}}{\frac{0.055}{12}} \right] \checkmark\checkmark$ $\therefore R = \underline{\underline{RM139.54}} \checkmark$	<p>4</p>
<p>3 b) ii)</p>	$S = R \left[\frac{(1+i)^n - 1}{i} \right]$ $S = 139.54 \left[\frac{\left(1 + \frac{0.055}{12}\right)^{48} - 1}{\frac{0.055}{12}} \right] \checkmark\checkmark\checkmark$ $\therefore S = \underline{\underline{RM990.31}} \checkmark$	<p>4</p>
<p>TOTAL MARKS (Q3) = 20 MARKS</p>		
<p>TOTAL MARKS (PART B) = 60 MARKS</p>		