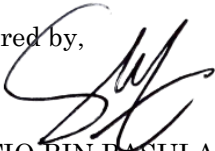



**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	1																		
CHAPTER	Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS																		
MODE	TUTORIAL																		
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																		
SLT	F2F (hour):	1	NF2F (hour):	1															
CLASS (DAY, TIME, VENUE) DATE	LEARNING OUTCOME			T&L STRATEGIES & TOOLS	REFLECTION		REMARKS												
T5A(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  02/08/2021(T5A); 02/08/2021(T5B); 03/08/2021(T6A); 03/08/2021(T6A)	1.1a) Define dimension. 1.1b) Determine the dimensions of derived quantities. 1.1c) Verify the homogeneity of equations using dimensional analysis.			Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td>5</td></tr><tr><td>ii</td><td>6</td></tr><tr><td>iii</td><td>5</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>6</td></tr></table>		ITEM *Appendix	SCORE	i	5	ii	6	iii	5	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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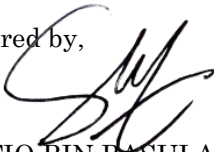
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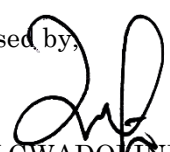
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T5A(TUE, 0900hrs, BT1), T5B(TUE, 1500 hrs, MF), T6A(WED, 0800 hrs, BT1), T6B(WED, 0900 hrs, BT1 )  03/08/2021(T5A); 03/08/2021(T5B); 04/08/2021(T6A); 04/08/2021(T6A)	1.2a) Define scalar and vector quantities. 1.2b) Resolve vector into two perpendicular components (x and y axes). 1.2c) Determine resultant of vectors. (remarks: limit to three vectors only).			Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td>6</td></tr><tr><td>ii</td><td>5</td></tr><tr><td>iii</td><td>6</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>6</td></tr></table>	ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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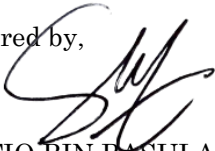
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LECTURER	SHAFIQ BIN RASULAN																		
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WEEK	2																		
CHAPTER	Chapter: 2: KINEMATICS OF MOTIONS																		
MODE	TUTORIAL																		
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																		
SLT	F2F (hour):	1	NF2F (hour):	1															
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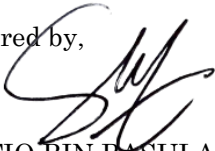
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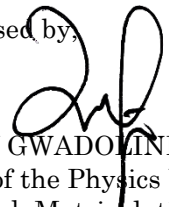
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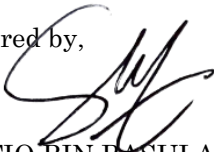
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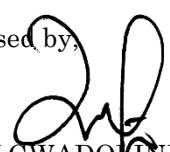
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T5A, T5B, T6A, T6B(THUR, 0800hrs, DK1)  12/08/2021(T5A); 12/08/2021(T5B); 12/08/2021(T6A); 12/08/2021(T6A)	2.2a) Derive and apply equations of motion with uniform acceleration (Refer equation 1)			Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appe ndix</td><td>SCOR E</td></tr><tr><td>i</td><td>5</td></tr><tr><td>ii</td><td>6</td></tr><tr><td>iii</td><td>6</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>5</td></tr></table>	ITEM *Appe ndix	SCOR E	i	5	ii	6	iii	6	iv	5	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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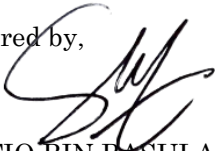
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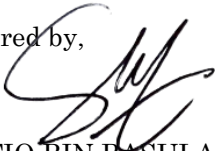
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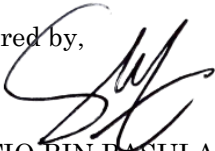
  
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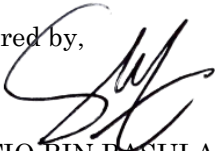
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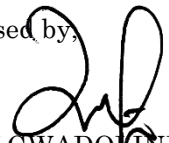
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LECTURER	SHAFIQ BIN RASULAN																				
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CHAPTER	Chapter: 3: DYNAMICS OF LINEAR MOTION																				
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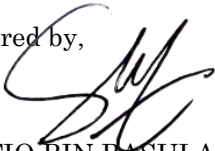
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T5A(TUE, 0900hrs, BT1), T5B(TUE, 1500 hrs, MF), T6A(WED, 0800 hrs, BT1), T6B(WED, 0900 hrs, BT1 )  24/08/2021(T5A); 24/08/2021(T5B); 25/08/2021(T6A); 25/08/2021(T6A)	3.1c) Use F-t graph to determine impulse.				Discussions  Thought Experiments  Activities		<table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td>6</td></tr><tr><td>ii</td><td>5</td></tr><tr><td>iii</td><td>6</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	5	v	5	All objectives achieved. Students are able to understand the materials of the topic.	
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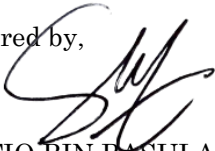
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**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	4																		
CHAPTER	Chapter: 3: DYNAMICS OF LINEAR MOTION																		
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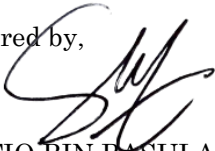
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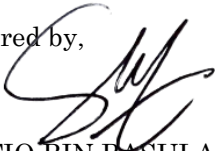
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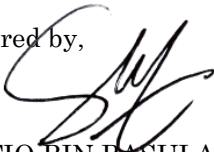
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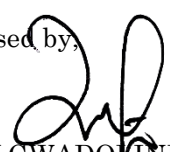
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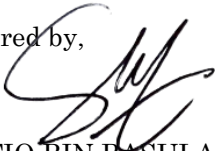
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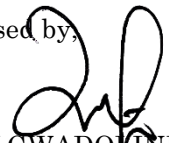
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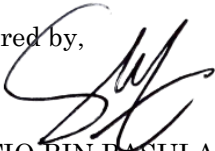
  
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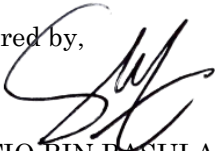
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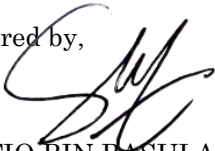
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LECTURER	SHAFIQ BIN RASULAN																					
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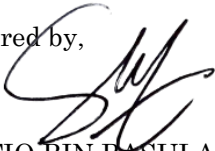
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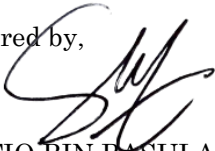
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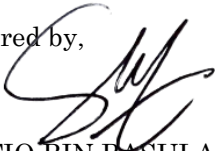
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WEEK	8																					
CHAPTER	Chapter: 5: CIRCULAR MOTION																					
MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																					
SLT	F2F (hour):	1	NF2F (hour):	1																		
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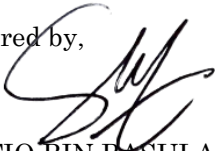
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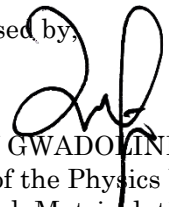
**KOLEJ MATRIKULASI SARAWAK**  
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**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																					
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WEEK	8																					
CHAPTER	Chapter: 5: CIRCULAR MOTION																					
MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																					
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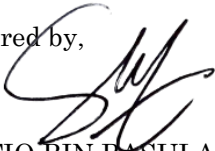
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LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	8																	
CHAPTER	Chapter: 5: CIRCULAR MOTION																	
MODE	TUTORIAL																	
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																	
SLT	F2F (hour):	1	NF2F (hour):	1														
CLASS (DAY, TIME, VENUE) DATE	LEARNING OUTCOME			T&L STRATEGIES & TOOLS	REFLECTION	REMARKS												
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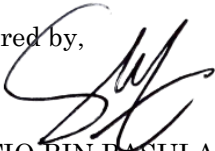
  
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LECTURER	SHAFIQ BIN RASULAN																					
CODE / COURSE	SP015																					
WEEK	9																					
CHAPTER	Chapter: 6: ROTATION OF RIGID BODY																					
MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																					
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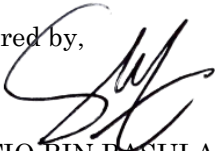
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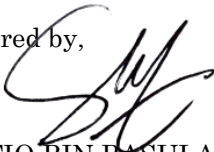
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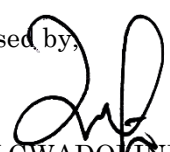
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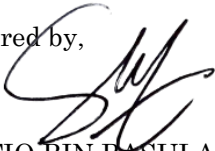
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LECTURER	SHAFIQ BIN RASULAN																	
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WEEK	10																	
CHAPTER	Chapter: 6: ROTATION OF RIGID BODY																	
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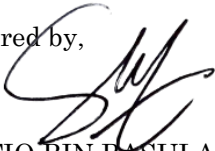
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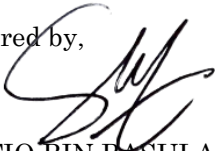
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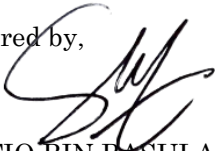
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CHAPTER	Chapter: 7: OSCILLATIONS AND WAVES																	
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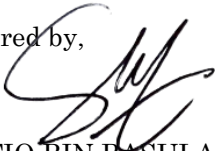
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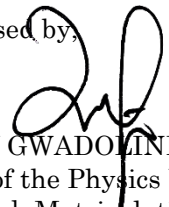
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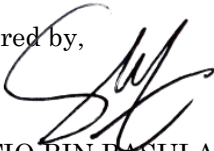
  
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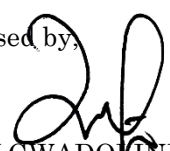
**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	11																	
CHAPTER	Chapter: 7: OSCILLATIONS AND WAVES																	
MODE	TUTORIAL																	
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																	
SLT	F2F (hour):	1	NF2F (hour):	1														
CLASS (DAY, TIME, VENUE) DATE	LEARNING OUTCOME			T&L STRATEGIES & TOOLS	REFLECTION		REMARKS											
T5A, T5B, T6A, T6B(THUR, 0800hrs, DK1)  21/10/2021(T5A); 21/10/2021(T5B); 21/10/2021(T6A); 21/10/2021(T6A)	7.3a) Use expression for period of SHM, for simple pendulum and mass-spring system – Simple pendulum and mass-spring system (Refer Equation 13) 7.3b) Determine the acceleration, g due to gravity using simple pendulum.(Experiment 5: SHM) 7.3c) Investigate the effect of large amplitude oscillation to the accuracy of acceleration due to gravity, g obtained from the experiment. (Experiment 5: SHM)			Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td>5</td></tr><tr><td>ii</td><td>5</td></tr><tr><td>iii</td><td>5</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>6</td></tr></table>	ITEM *Appendix	SCORE	i	5	ii	5	iii	5	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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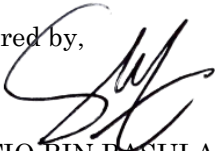
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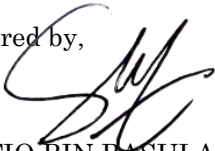
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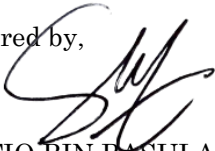
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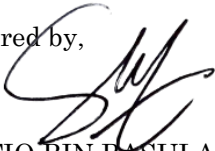
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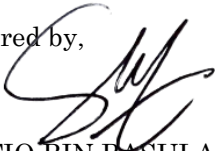
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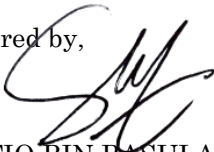
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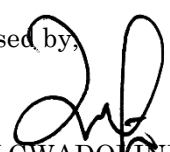
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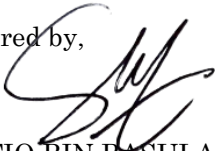
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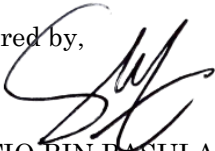
  
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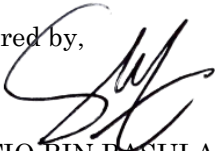
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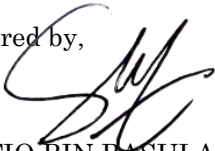
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T5A(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  15/11/2021(T5A); 15/11/2021(T5B); 16/11/2021(T6A); 16/11/2021(T6A)	8.1a) Distinguish between stress and strain for tensile and compression force. (Refer Equation 18) 8.1b) Analyse the graph of stress-strain, $\sigma$ & for a metal under tension. 8.1c) Explain elastic and plastic deformations. 8.1d) Analyse graph of force-elongation for brittle and ductile materials.				Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td>6</td></tr><tr><td>ii</td><td>6</td></tr><tr><td>iii</td><td>5</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>6</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	6	iii	5	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.		
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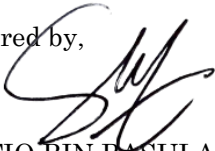
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**SEMESTER I SESSION 2021/2022**

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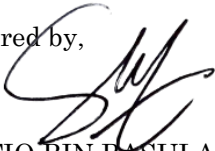
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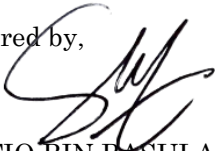
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LECTURER	SHAFIQ BIN RASULAN																				
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WEEK	16																				
CHAPTER	Chapter: 8: PHYSICS OF MATTER																				
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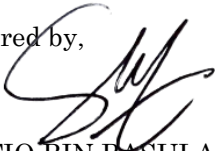
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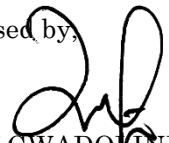
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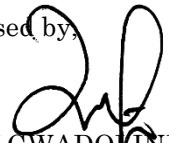
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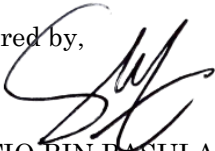
  
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LECTURER	SHAFIQ BIN RASULAN																		
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WEEK	17																		
CHAPTER	Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS																		
MODE	TUTORIAL																		
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SLT	F2F (hour):	1	NF2F (hour):	1															
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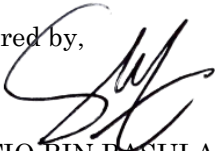
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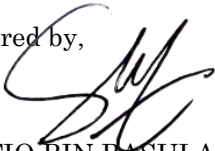
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