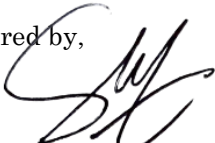


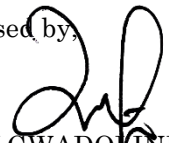
**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER		SHAFIQ BIN RASULAN																		
CODE / COURSE		SP015																		
WEEK		1																		
CHAPTER		Chapter 1: Physical Quantities And Measurements																		
MODE		Lectures																		
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																		
SLT		F2F (hour):		1		NF2F (hour):		1												
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS											
Friday 06/08/2021 0800hrs BT1	K3	1.1a Define dimension. 1.2a Define scalar and vector quantities. 1.3a State the significant figures of a given number. 1.3e State the sources of uncertainty in the results of an experiment.				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>6</td></tr></table>	ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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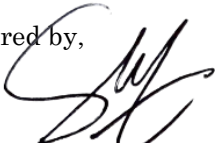
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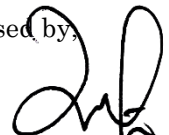
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**SEMESTER I SESSION 2021/2022**

LECTURER		SHAFIQ BIN RASULAN																		
CODE / COURSE		SP015																		
WEEK		2																		
CHAPTER		Chapter 2: Kinematics Of Motions																		
MODE		Lectures																		
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																		
SLT		F2F (hour):		1		NF2F (hour):		1												
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS											
Friday 13/08/2021 0800hrs BT1	K3	2.1a Define instantaneous velocity, average velocity, uniform velocity, instantaneous acceleration, average acceleration and uniform acceleration. 2.1b Interpret the physical meaning of displacement-time, velocity-time and acceleration-time graphs. Refer Equation 1.				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>6</td></tr></table>	ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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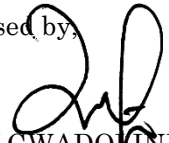
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**SEMESTER I SESSION 2021/2022**

LECTURER		SHAFIQ BIN RASULAN																		
CODE / COURSE		SP015																		
WEEK		3																		
CHAPTER		Chapter 2: Kinematics Of Motions Chapter 3: Dynamics Of Linear Motion																		
MODE		Lectures																		
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																		
SLT		F2F (hour):		1		NF2F (hour):		1												
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS											
Friday 20/08/2021 0800hrs BT1	K3	2.3a Describe projectile motion launched at an angle, as well as special cases when angle is zero 3.1a Define momentum and impulse, refer equation 2 3.2a State the principle of conservation of linear momentum.				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>6</td></tr><tr><td>v</td><td>6</td></tr></table>	ITEM *Appendix	SCORE	i	6	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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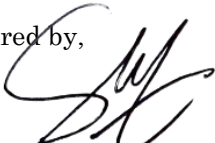
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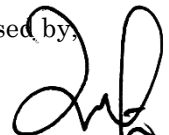
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		4																			
CHAPTER		Chapter 3: Dynamics Of Linear Motion																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 27/08/2021 0800hrs BT1	K3	3.2c Differentiate elastic and inelastic collisions. (remarks: similarities & differences) 3.3a Identify the forces acting on a body in different situations: i. Weight, W; ii. Tension, T; iii. Normal force, N; iv. Friction, f; and v. External force (pull or push), F. 3.4a State Newton's laws of motion.				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>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	5	iii	5	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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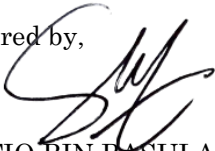
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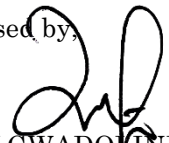
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		5																			
CHAPTER		Chapter 4: Work, Energy And Power																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 03/09/2021 0800hrs BT1	K3	4.1a State the physical meaning of dot (scalar) product for work, refer equation 4. 4.1b Define and apply work done by a constant force. 4.2a Define and use: i. Gravitational potential energy, ii. Elastic potential energy for spring, iii. Kinetic energy. (Refer Equation 5)				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>5</td></tr></table>		ITEM *Appendix	SCORE	i	5	ii	5	iii	5	iv	5	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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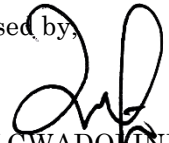
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		6																			
CHAPTER		Chapter 4: Work, Energy And Power Chapter 5: Circular Motion																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1	NF2F (hour):	1															
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 10/09/2021 0800hrs BT1	K3	4.2b State the principle of conservation of energy. 4.2d State and apply work-energy theorem (Refer equation 5) 4.3a Define and use average power and instantaneous power (Refer Equation 6) 5.1a Define and use: i. angular displacement, $\theta$ ii. period, T iii. frequency, f iv. angular velocity, $\omega$ 5.2a Describe uniform circular motion.				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>6</td></tr><tr><td>v</td><td>6</td></tr></table>		ITEM *Appendix	SCORE	i	5	ii	5	iii	5	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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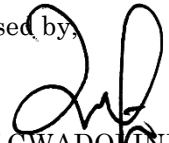
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		7																			
CHAPTER		Chapter 5: Circular Motion Chapter 6: Rotation Of Rigid Body																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 17/09/2021 0800hrs BT1	K3	5.3a Explain centripetal acceleration and centripetal force (Refer equation 7) 6.1a Define and use: i. angular displacement, $\theta$ ; ii. average angular velocity, $\omega_{av}$ , iii. instantaneous angular velocity, $\omega$ ; iv. average angular acceleration, $\alpha_{av}$ ; and v. instantaneous angular acceleration, $\alpha$ . 6.2a State the physical meaning of cross (vector) product for torque (Refer equation 9) 6.2b Define and apply torque. 6.2c State conditions for equilibrium of rigid body, $\Sigma F = 0$ , $\Sigma \tau = 0$				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>6</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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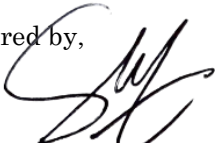
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		8																			
CHAPTER		Chapter 6: Rotation Of Rigid Body																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 24/09/2021 0800hrs BT1	K3	6.3a Define and use moment of inertia (Refer equation 10) 6.3d State and use net torque (Refer equation 10) 6.4a Explain and use angular momentum (Refer equation 11) 6.4b State and use principle of conservation of angular momentum.				Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appe ndix</td><td>SCOR E</td></tr><tr><td>i</td><td>6</td></tr><tr><td>ii</td><td>6</td></tr><tr><td>iii</td><td>6</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appe ndix	SCOR E	i	6	ii	6	iii	6	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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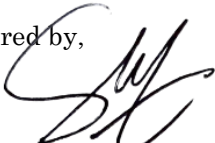
  
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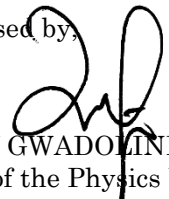
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LECTURER		SHAFIQ BIN RASULAN																		
CODE / COURSE		SP015																		
WEEK		9																		
CHAPTER		Chapter 7: Oscillations And Waves																		
MODE		Lectures																		
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																		
SLT		F2F (hour):		1		NF2F (hour):		1												
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS											
Friday 01/10/2021 0800hrs BT1	K3	7.1a Explain SHM. 7.1d Emphasise the relationship between total SHM energy and amplitude.				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>5</td></tr></table>	ITEM *Appendix	SCORE	i	6	ii	6	iii	5	iv	5	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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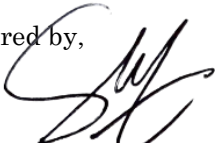
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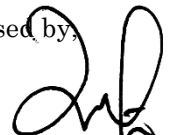
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LECTURER		SHAFIQ BIN RASULAN							
CODE / COURSE		SP015							
WEEK		10							
CHAPTER		Chapter 7: Oscillations And Waves							
MODE		Lectures							
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics							
SLT		F2F (hour):		1	NF2F (hour):		1		
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS
Friday 14/10/2021 0800hrs BT1	K3	7.4a Define wavelength. 7.4b Define and use wave number (Refer equation 14) 7.4d Distinguish between particle vibrational velocity and wave propagation velocity.				Discussions  Thought Experiments  Activities	ITEM *Appendix		All objectives achieved. Students are able to understand the materials of the topic.
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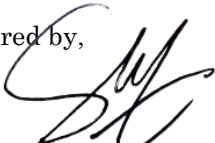
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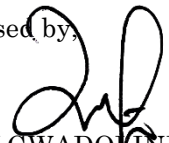
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		11																			
CHAPTER		Chapter 7: Oscillations And Waves																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1	NF2F (hour):		1														
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 21/10/2021 0800hrs BT1	K3	7.5a State the principle of superposition of waves for the constructive and destructive interferences. 7.5c Compare between progressive waves and standing waves.				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>5</td></tr><tr><td>iii</td><td>5</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appe ndix	SCOR E	i	5	ii	5	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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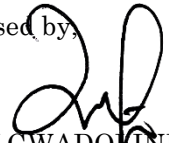
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		12																			
CHAPTER		Chapter 7: Oscillations And Waves Chapter 8: Physics Of Matter																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 28/10/2021 0800hrs BT1	K3	7.7a State Doppler Effect for sound waves. 8.1c Explain elastic and plastic deformations.				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>6</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	6	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.	
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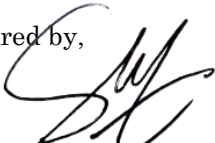
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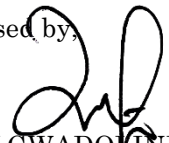
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**SEMESTER I SESSION 2021/2022**

LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		13																			
CHAPTER		Chapter 8: Physics Of Matter																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 04/11/2021 0800hrs BT1	K3	8.2a Define and use Young's Modulus (Refer equation 19)				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>5</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appe ndix	SCOR E	i	5	ii	6	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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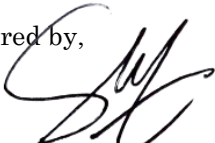
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**SEMESTER I SESSION 2021/2022**

LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		14																			
CHAPTER		Chapter 8: Physics Of Matter																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1	NF2F (hour):		1														
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 11/11/2021 0800hrs BT1	K3	8.3a Define heat conduction.				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>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	6	iii	6	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.	
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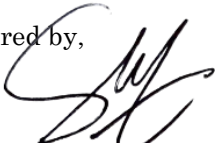
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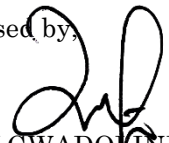
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		15																			
CHAPTER		Chapter 8: Physics Of Matter																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1		NF2F (hour):		1													
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 18/11/2021 0800hrs BT1	K3	8.4a Define coefficient of linear expansion, $\alpha$ , area expansion, $\beta$ and volume expansion, $\gamma$				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>6</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	6	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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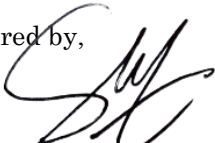
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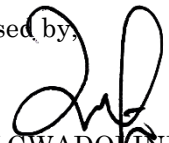
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		16																			
CHAPTER		Chapter 9: Kinetic Theory Of Gases And Thermodynamics																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1	NF2F (hour):		1														
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 25/11/2021 0800hrs BT1	K3	9.1a State the assumptions of kinetic theory of gases. 9.1b Describe root mean square (rms) speed of gas molecules (Refer equation 22) 9.2a Explain and use translational kinetic energy of a molecule (Refer equation 23) 9.2b Define degree of freedom. 9.2c Identify number of degrees of freedom, ffor monoatomic, diatomic and polyatomic gas molecules.				Discussions  Thought Experiments  Activities	<table><tr><td>ITEM *Appe ndix</td><td>SCOR E</td></tr><tr><td>i</td><td>6</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>5</td></tr></table>		ITEM *Appe ndix	SCOR E	i	6	ii	5	iii	5	iv	5	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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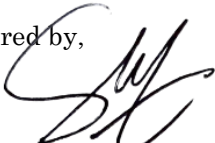
  
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LECTURER		SHAFIQ BIN RASULAN																			
CODE / COURSE		SP015																			
WEEK		17																			
CHAPTER		Chapter 9: Kinetic Theory Of Gases And Thermodynamics																			
MODE		Lectures																			
CLO		CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics																			
SLT		F2F (hour):		1	NF2F (hour):		1														
DAY DATE TIME VENUE	CLASS	LEARNING OUTCOME				T&L STRATEGIE S & TOOLS	REFLECTION		REMARKS												
Friday 02/12/2021 0800hrs BT1	K3	9.2d State the principle of equipartition of energy. 9.2e Discuss internal energy of gas. 9.3a State the First Law of Thermodynamics (Refer equation 24) 9.4a Define the following thermodynamic processes: i. Isothermal; ii. Isochoric; iii. Isobaric and iv. Adiabatic. 9.4b Analyse P-V graph for all the thermodynamic processes.				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>5</td></tr></table>		ITEM *Appendix	SCORE	i	5	ii	6	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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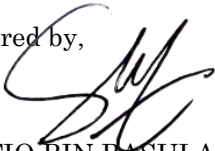
  
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LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	1																		
CHAPTER	Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS																		
MODE	TUTORIAL																		
CLO	CLO2: Solve problems related 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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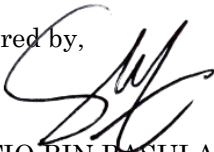
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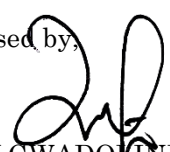
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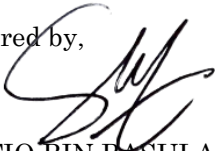
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LECTURER	SHAFIQ BIN RASULAN																			
CODE / COURSE	SP015																			
WEEK	2																			
CHAPTER	Chapter: 2: KINEMATICS OF MOTIONS																			
MODE	TUTORIAL																			
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																			
SLT	F2F (hour):	1	NF2F (hour):	1																
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T5A(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  09/08/2021(T5A); 09/08/2021(T5B); 10/08/2021(T6A); 10/08/2021(T6A)	2.1a) Define instantaneous velocity, average velocity, uniform velocity, instantaneous acceleration, average acceleration and uniform acceleration. 2.1b) Interpret the physical meaning of displacement-time, velocity-time and acceleration-time graphs. 2.1c) Determine the distance travelled, displacement, velocity and acceleration from appropriate graphs.			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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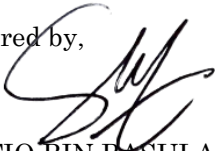
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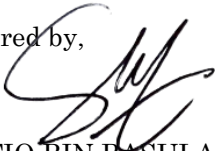
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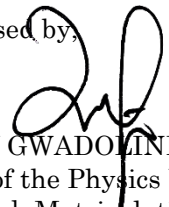
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WEEK	2																					
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MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																					
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T5A, 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 *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>6</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appendix	SCORE	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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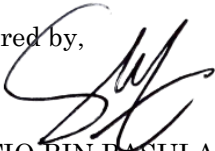
  
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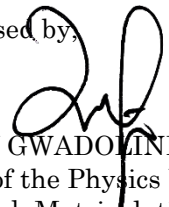
**KOLEJ MATRIKULASI SARAWAK**  
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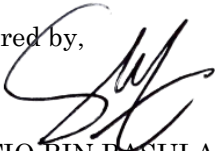
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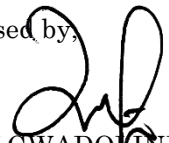
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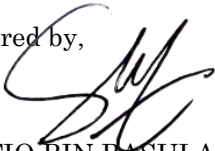
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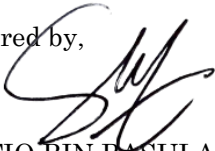
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LECTURER	SHAFIQ BIN RASULAN																					
CODE / COURSE	SP015																					
WEEK	4																					
CHAPTER	Chapter: 3: DYNAMICS OF LINEAR MOTION																					
MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																					
SLT	F2F (hour):	1	NF2F (hour):	1																		
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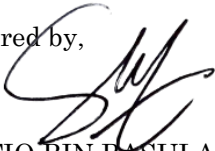
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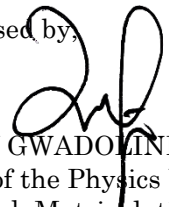
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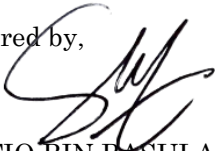
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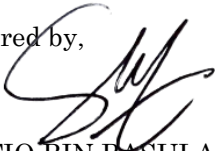
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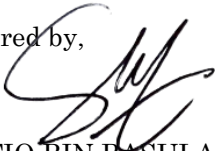
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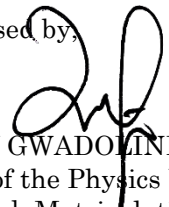
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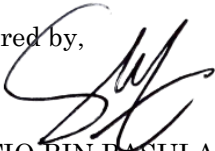
  
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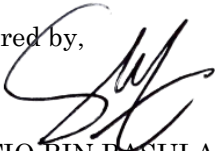
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LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	6																	
CHAPTER	Chapter: 4: WORK, ENERGY AND POWER																	
MODE	TUTORIAL																	
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																	
SLT	F2F (hour):	1	NF2F (hour):	1														
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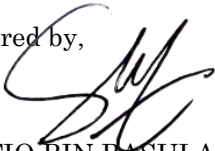
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**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	6																		
CHAPTER	Chapter: 4: WORK, ENERGY AND POWER																		
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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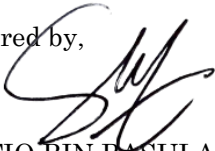
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**SEMESTER I SESSION 2021/2022**

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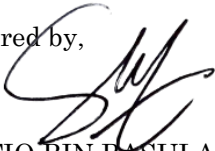
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**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																					
CODE / COURSE	SP015																					
WEEK	7																					
CHAPTER	Chapter: 4: WORK, ENERGY AND POWER																					
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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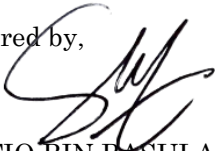
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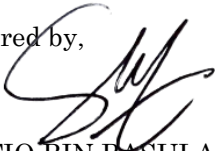
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T5A, T5B, T6A, T6B(THUR, 0800hrs, DK1)  16/09/2021(T5A); 16/09/2021(T5B); 16/09/2021(T6A); 16/09/2021(T6A)	4.3a) Define and use average power, and instantaneous power (Refer Equation 6) 4.3b) Verify the law of conservation of energy. (Experiment 3: Energy)				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>6</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	5	iii	6	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.	
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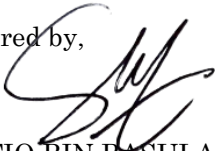
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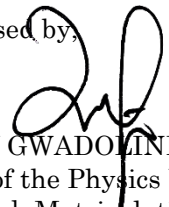
**KOLEJ MATRIKULASI SARAWAK**  
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**SEMESTER I SESSION 2021/2022**

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												
T5A(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  20/09/2021(T5A); 20/09/2021(T5B); 21/09/2021(T6A); 21/09/2021(T6A)	5.1a) Define and use – angular displacement, period, frequency, angular velocity				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>6</td></tr><tr><td>v</td><td>6</td></tr></table>	ITEM *Appendix	SCORE	i	5	ii	5	iii	5	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.	
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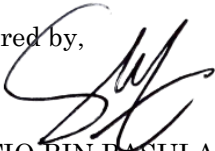
  
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LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	8																	
CHAPTER	Chapter: 5: CIRCULAR MOTION																	
MODE	TUTORIAL																	
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																	
SLT	F2F (hour):	1	NF2F (hour):	1														
CLASS (DAY, TIME, VENUE) DATE	LEARNING OUTCOME			T&L STRATEGIE S & TOOLS	REFLECTION	REMARKS												
T5A(TUE, 0900hrs, BT1), T5B(TUE, 1500 hrs, MF), T6A(WED, 0800 hrs, BT1), T6B(WED, 0900 hrs, BT1 )  21/09/2021(T5A); 21/09/2021(T5B); 22/09/2021(T6A); 22/09/2021(T6A)	5.2a) Describe uniform circular motion. 5.2b) Convert units between degrees, radian, and revolution or rotation.			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>5</td></tr><tr><td>iv</td><td>6</td></tr><tr><td>v</td><td>5</td></tr></table>	ITEM *Appendix	SCORE	i	6	ii	5	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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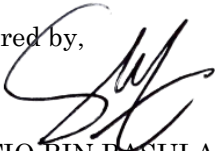
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LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	8																	
CHAPTER	Chapter: 5: CIRCULAR MOTION																	
MODE	TUTORIAL																	
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																	
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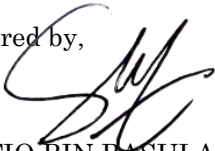
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LECTURER	SHAFIQ BIN RASULAN																				
CODE / COURSE	SP015																				
WEEK	9																				
CHAPTER	Chapter: 6: ROTATION OF RIGID BODY																				
MODE	TUTORIAL																				
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																				
SLT	F2F (hour):	1	NF2F (hour):	1																	
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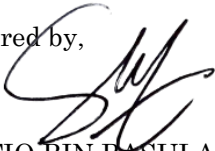
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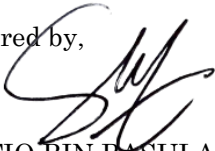
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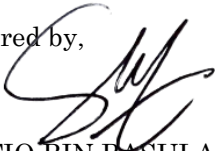
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**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	10																		
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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T5A(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  11/10/2021(T5A); 11/10/2021(T5B); 12/10/2021(T6A); 12/10/2021(T6A)	6.3a) Define and use moment of inertia (Refer Equation 10) 6.3b) Use the moment of inertia of a uniform rigid body. (sphere, cylinder, ring, disc, and rod). 6.3c) Determine the moment of inertia of a flywheel. (Experiment 4: Rotational motion of rigid body) d) State and use net torque (Refer Equation 10)			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>6</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	5	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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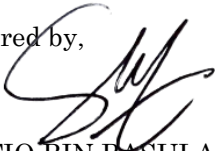
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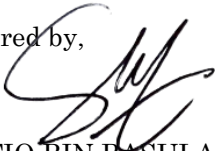
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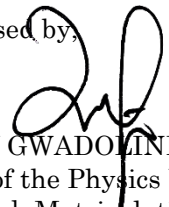
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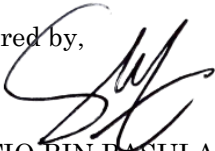
  
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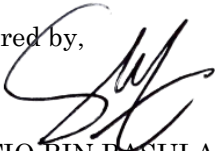
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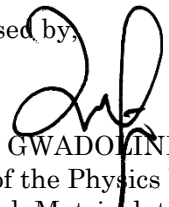
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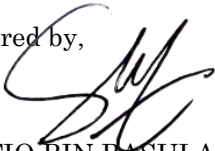
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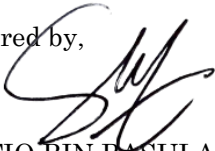
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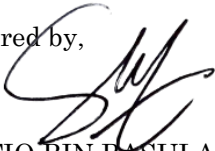
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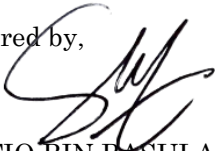
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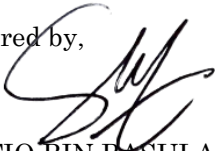
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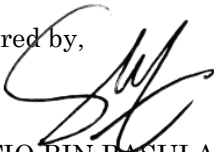
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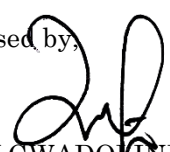
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T5A(TUE, 0900hrs, BT1), T5B(TUE, 1500 hrs, MF), T6A(WED, 0800 hrs, BT1), T6B(WED, 0900 hrs, BT1 )  02/11/2021(T5A); 02/11/2021(T5B); 03/11/2021(T6A); 03/11/2021(T6A)	7.6a) Solve problems related to the fundamental and overtone frequencies for stretched string and air columns (open and closed end). (Refer Equation 16) 7.6b) Use wave speed in a stretched string (Refer Equation 16) 7.6c) Investigate standing wave formed in a stretched string. (Experiment 6: Standing waves) 7.6d) Determine the mass per unit length of the string. (Experiment 6: Standing waves)			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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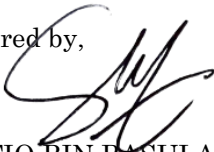
  
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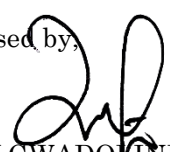
**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	13																	
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)  04/11/2021(T5A); 04/11/2021(T5B); 04/11/2021(T6A); 04/11/2021(T6A)	7.6a) Solve problems related to the fundamental and overtone frequencies for stretched string and air columns (open and closed end). (Refer Equation 16) 7.6b) Use wave speed in a stretched string (Refer Equation 16) 7.6c) Investigate standing wave formed in a stretched string. (Experiment 6: Standing waves) 7.6d) Determine the mass per unit length of the string. (Experiment 6: Standing waves)			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>6</td></tr><tr><td>v</td><td>5</td></tr></table>	ITEM *Appendix	SCORE	i	5	ii	5	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.
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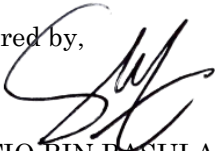
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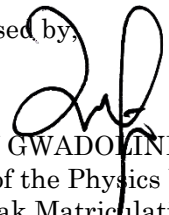
**KOLEJ MATRIKULASI SARAWAK**  
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**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																	
CODE / COURSE	SP015																	
WEEK	14																	
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(MON, 1100hrs, DK1), T5B(MON, 1200 hrs, DK1), T6A(TUE, 0800 hrs, BT1), T6B(TUE, 1400 hrs, BT1)  08/11/2021(T5A); 08/11/2021(T5B); 09/11/2021(T6A); 09/11/2021(T6A)	7.7a) State Doppler Effect for sound waves. 7.7b) Apply Doppler Effect equation for relative motion between source and observer. Limit to stationary observer and moving source, and vice versa. (Refer Equation 17)			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>6</td></tr><tr><td>iv</td><td>5</td></tr><tr><td>v</td><td>5</td></tr></table>	ITEM *Appendix	SCORE	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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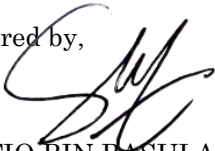
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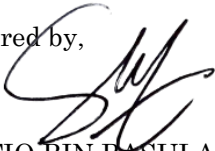
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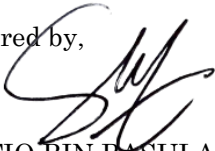
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**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	15																		
CHAPTER	Chapter: 8: PHYSICS OF MATTER																		
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)  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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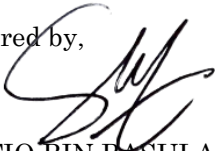
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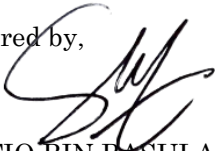
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CLASS (DAY, TIME, VENUE) DATE	LEARNING OUTCOME			T&L STRATEGIES & TOOLS	REFLECTION	REMARKS												
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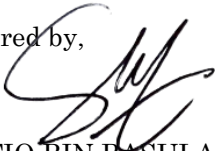
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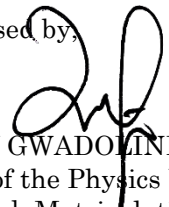
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LECTURER	SHAFIQ BIN RASULAN																					
CODE / COURSE	SP015																					
WEEK	16																					
CHAPTER	Chapter: 8: PHYSICS OF MATTER																					
MODE	TUTORIAL																					
CLO	CLO2: Solve problems related to 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)  22/11/2021(T5A); 22/11/2021(T5B); 23/11/2021(T6A); 23/11/2021(T6A)	8.3a) Define heat conduction. 8.3b) Solve problems related to rate of heat transfer through a cross-sectional area (remarks: maximum two insulated objects in series) (Refer Equation 20) 8.3c) Analyse graphs of temperature-distance (T-L) for heat conduction through insulated and non-insulated rods, maximum two rods in series.				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>6</td></tr><tr><td>v</td><td>5</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	6	iii	5	iv	6	v	5	All objectives achieved. Students are able to understand the materials of the topic.		
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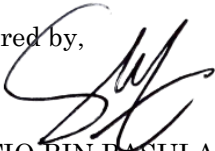
  
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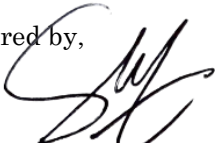
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T5A, T5B, T6A, T6B(THUR, 0800hrs, DK1)  25/11/2021(T5A); 25/11/2021(T5B); 25/11/2021(T6A); 25/11/2021(T6A)	8.4a) Define coefficient of linear expansion, $\alpha$ , area expansion, $\beta$ and volume expansion, $\gamma$ 8.4b) Solve problems related to thermal expansion of linear, area and volume, include expansion of liquid in a container. (Refer Equation 21) 9.1a) State the assumptions of kinetic theory of gases. 9.1b) Describe root mean square (rms) speed of gas molecules (Refer Equation 22) 9.1c) Solve problems related to root mean square (rms) speed of gas molecules (Refer Equation 22) 9.1d) Solve problems related to the equations and pressure (Refer Equation 22)			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>5</td></tr></table>		ITEM *Appendix	SCORE	i	6	ii	5	iii	6	iv	6	v	5
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 Sarawak Matriculation College  
 Date:

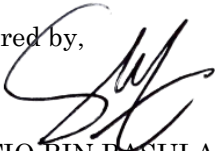
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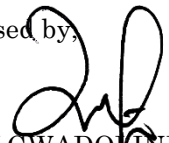
**KOLEJ MATRIKULASI SARAWAK**  
**LESSON PLAN**  
**SEMESTER I SESSION 2021/2022**

LECTURER	SHAFIQ BIN RASULAN																		
CODE / COURSE	SP015																		
WEEK	17																		
CHAPTER	Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS																		
MODE	TUTORIAL																		
CLO	CLO2: Solve problems related to mechanics, waves, matter, heat and thermodynamics.																		
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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)  29/11/2021(T5A); 29/11/2021(T5B); 30/11/2021(T6A); 30/11/2021(T6A)	9.2a) Explain and use translational kinetic energy of a molecule (Refer Equation 23) 9.2b) Define degree of freedom. 9.2c) Identify number of degrees of freedom, f for monoatomic, diatomic and polyatomic gas molecules. 9.2d) State the principle of equipartition of energy. 9.2e) Discuss internal energy of gas. 9.2f) Solve problems related to internal energy (Refer Equation 23)			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>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	6	iii	6	iv	6	v	6	All objectives achieved. Students are able to understand the materials of the topic.
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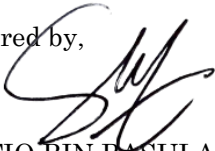
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T5A(TUE, 0900hrs, BT1), T5B(TUE, 1500 hrs, MF), T6A(WED, 0800 hrs, BT1), T6B(WED, 0900 hrs, BT1 )  30/11/2021(T5A); 30/11/2021(T5B); 01/12/2021(T6A); 01/12/2021(T6A)	9.3a) State the First Law of Thermodynamics (Refer Equation 24) 9.3b) Solve problem related to First Law of Thermodynamics. 9.4a) Define the following thermodynamic processes – Isothermal, Isochoric, Isobaric and Adiabatic.			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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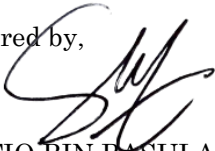
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