

Lectures

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 1 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 17/07/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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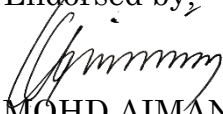
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 2 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
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| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 24/07/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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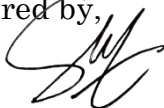
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LESSON PLAN
SEMESTER I SESSION 2023/2024

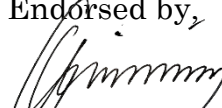
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 3 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS Chapter: 3: DYNAMICS OF LINEAR MOTION | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 31/07/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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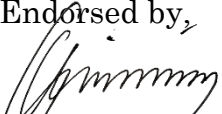
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 4 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 3: DYNAMICS OF LINEAR MOTION | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 07/08/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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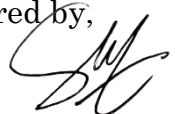
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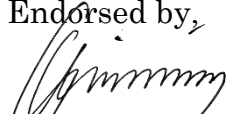
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LESSON PLAN
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 5 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 14/08/2023 9am-10am BT1 | K1 | 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) | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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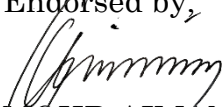
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 6 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER Chapter: 5: CIRCULAR MOTION | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 21/08/2023 9am-10am BT1 | K1 | 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, θ ii. period, T iii. frequency, f iv. angular velocity, ω 5.2a Describe uniform circular motion. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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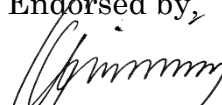
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 7 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 5: CIRCULAR MOTION Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 28/08/2023 9am-10am BT1 | K1 | 5.3a Explain centripetal acceleration and centripetal force (Refer equation 7) 6.1a Define and use: i. angular displacement, θ ; ii. average angular velocity, ω_{av} ; iii. instantaneous angular velocity, ω ; iv. average angular acceleration, α_{av} ; and v. instantaneous angular acceleration, α . 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, $\Sigma F = 0$, $\Sigma \tau = 0$ | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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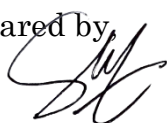
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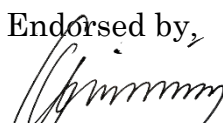
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 8 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 04/09/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 9 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
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| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 18/09/2023 9am-10am BT1 | K1 | 7.1a Explain SHM. 7.1d Emphasise the relationship between total SHM energy and amplitude. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Sarawak Matriculation College
 Date: 14/09/2023

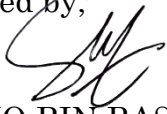
Endorsed by,

MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 15/09/2023

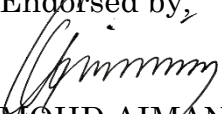
KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 10 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 25/09/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Date: 21/09/2023

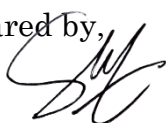
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MOHD AIMAN BIN MOHD ADLI
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 Date: 22/09/2023

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LESSON PLAN
SEMESTER I SESSION 2023/2024

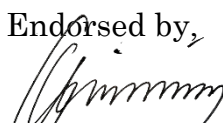
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 11 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 02/10/2023 9am-10am BT1 | K1 | 7.5a State the principle of superposition of waves for the constructive and destructive interferences. 7.5c Compare between progressive waves and standing waves. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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SHAFIQ BIN RASULAN
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 Date: 28/09/2023

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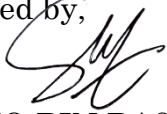


MOHD AIMAN BIN MOHD ADLI
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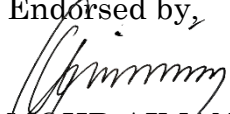
KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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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 | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 09/10/2023 9am-10am BT1 | K1 | 7.7a State Doppler Effect for sound waves. 8.1c Explain elastic and plastic deformations. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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SHAFIQ BIN RASULAN
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 Date: 05/10/2023

Endorsed by,


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 Date: 06/10/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 13 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 16/10/2023 9am-10am BT1 | K1 | 8.2a Define and use Young's Modulus (Refer equation 19) | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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Prepared by,

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 Date: 12/10/2023

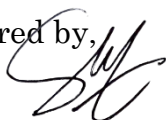
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 Date: 13/10/2023

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SEMESTER I SESSION 2023/2024

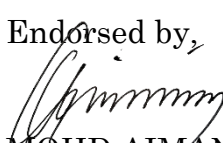
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 14 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 23/10/2023 9am-10am BT1 | K1 | 8.3a Define heat conduction. | Discussion Thought Experimen ts | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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SHAFIQ BIN RASULAN
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 Date: 19/10/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 20/10/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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|---|-----------|--|---------------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 15 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 30/10/2023 9am-10am BT1 | K1 | 8.4a Define coefficient of linear expansion, α , area expansion, β and volume expansion, γ | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Date: 26/10/2023

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 Date: 27/10/2023

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LESSON PLAN
SEMESTER I SESSION 2023/2024

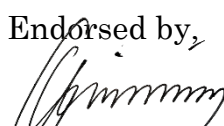
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 16 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 06/11/2023 9am-10am BT1 | K1 | 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) | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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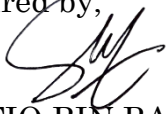


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 Date: 03/11/2023

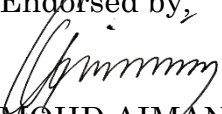
KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 17 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 13/11/2023 9am-10am BT1 | K1 | 9.2b Define degree of freedom. 9.2c Identify number of degrees of freedom, ffor monoatomic, diatomic and polyatomic gas molecules. 9.2d State the principle of equipartition of energy. 9.2e Discuss internal energy of gas. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Sarawak Matriculation College
 Date: 09/11/2023

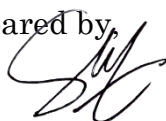
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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 10/11/2023

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SEMESTER I SESSION 2023/2024

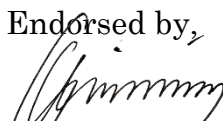
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 18 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS | | | | | | | | | | | | | | | |
| MODE | | Lecture | | | | | | | | | | | | | | | |
| CLO | | CLO1: Describe basic concepts of mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLAS S | LEARNING OUTCOME | T&L STRATE GIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Monday 20/11/2023 9am-10am BT1 | K1 | 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. | Discussion Thought Experiments | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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Prepared by



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 Date: 16/11/2023

Endorsed by,



MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 17/11/2023

Tutorials

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

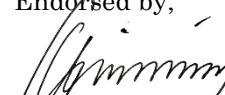
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 1 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
| CLO | | CLO2: Solve problems related to mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| <div>K1T1(Tuesday); K1T2A(Tuesday); K1T2B(Tuesday)</div> <div>K1T1(18/07/2023); K1T2A(18/07/2023); K1T2B(18/07/2023)</div> <div>K1T1(9am - 10am); K1T2A(3pm - 4pm); K1T2B(10am - 11am)</div> <div>K1T1(BT3); K1T2A(BT1); K1T2B(MF)</div> | K1 | 1.1a) Define dimension. 1.1b) Determine the dimensions of derived quantities. 1.1c) Verify the homogeneity of equations using dimensional analysis. | Discussion Thought Experiments Problem Practice | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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Prepared by,



SHAFIQ BIN RASULAN
 Physics Lecturer
 Sarawak Matriculation College
 Date: 13/07/2023

Endorsed by,



MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 14/07/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

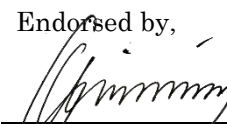
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 1 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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Prepared by,



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 Date: 13/07/2023

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 Sarawak Matriculation College
 Date: 14/07/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

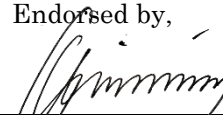
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 1 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 1: PHYSICAL QUANTITIES AND MEASUREMENTS | | | | | | | | | | | | | | | |
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 Date: 13/07/2023

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 Head of the Physics Unit
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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

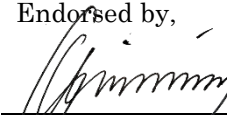
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 2 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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 Date: 20/07/2023

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 Sarawak Matriculation College
 Date: 21/07/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

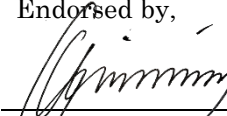
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 2 | | | | | | | | | | | | | | | | | |
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 Sarawak Matriculation College
 Date: 20/07/2023

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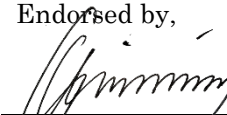
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 2 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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Prepared by,



SHAFIQ BIN RASULAN
 Physics Lecturer
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 Date: 20/07/2023

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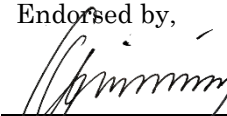
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 3 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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Prepared by,



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 Date: 27/07/2023

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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 28/07/2023

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LESSON PLAN
SEMESTER I SESSION 2023/2024

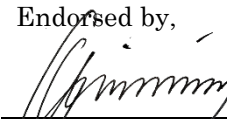
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 3 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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SHAFIQ BIN RASULAN
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 Date: 27/07/2023

Endorsed by,



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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 28/07/2023

KOLEJ MATRIKULASI SARAWAK
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SEMESTER I SESSION 2023/2024

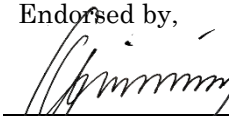
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 3 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 2: KINEMATICS OF MOTIONS | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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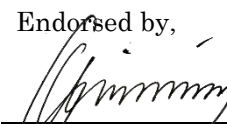
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 4 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 3: DYNAMICS OF LINEAR MOTION | | | | | | | | | | | | | | | | | |
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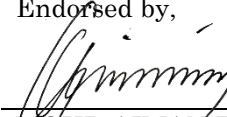
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 4 | | | | | | | | | | | | | | | | | |
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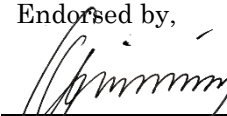
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 Date: 03/08/2023

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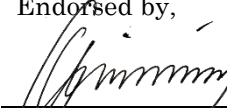
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 5 | | | | | | | | | | | | | | | |
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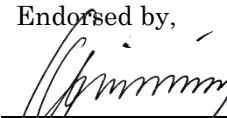
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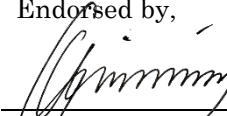
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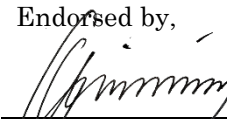
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 6 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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Prepared by,



SHAFIQ BIN RASULAN
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 Date: 17/08/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
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KOLEJ MATRIKULASI SARAWAK
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SEMESTER I SESSION 2023/2024

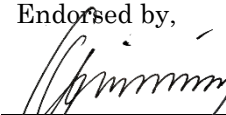
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 6 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER | | | | | | | | | | | | | | | |
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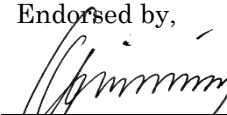
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
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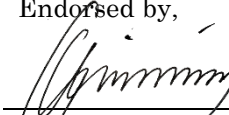
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 7 | | | | | | | | | | | | | | | | |
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 Date: 24/08/2023

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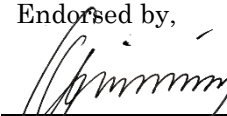
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 7 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER | | | | | | | | | | | | | | | | |
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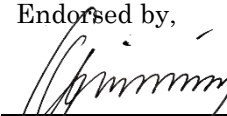
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| WEEK | | 7 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 4: WORK, ENERGY AND POWER | | | | | | | | | | | | | | | | | |
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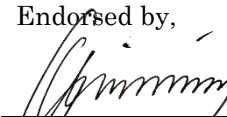
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 8 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 5: CIRCULAR MOTION | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
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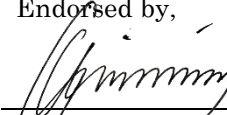
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| WEEK | | 8 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 5: CIRCULAR MOTION | | | | | | | | | | | | | | | |
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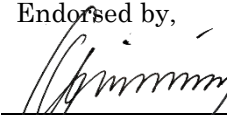
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 8 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 5: CIRCULAR MOTION | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
| CLO | | CLO2: Solve problems related to mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| <div><div>K1T1(Friday); K1T2A(Friday); K1T2B(Thursday)</div><div>K1T1(08/09/2023); K1T2A(08/09/2023); K1T2B(07/09/2023)</div><div>K1T1(11am - 12pm); K1T2A(10am - 11am); K1T2B(12pm-1pm)</div><div>K1T1(DK2); K1T2A(MF); K1T2B(BT1)</div></div> | K1 | 5.3a) Explain centripetal acceleration and centripetal force (Refer Equation 7) 5.3b) Solve problems related to centripetal force for uniform circular motion cases: horizontal circular motion, vertical circular motion and conical pendulum, exclude banked curve | | <div>Discussion</div> <div>Thought Experiments</div> <div>Problem Practice</div> | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | | |
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Prepared by,



SHAFIQ BIN RASULAN
 Physics Lecturer
 Sarawak Matriculation College
 Date: 31/08/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
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 Date: 01/09/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

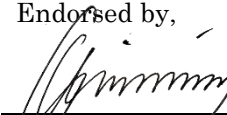
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 9 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
| CLO | | CLO2: Solve problems related to mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | | | |
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SHAFIQ BIN RASULAN
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 Date: 14/09/2023

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 Date: 15/09/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
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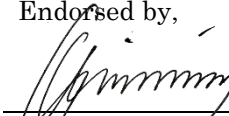
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 9 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
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| K1T1(Thursday); K1T2A(Wednesday); K1T2B(Wednesday) ----- K1T1(21/09/2023); K1T2A(20/09/2023); K1T2B(20/09/2023) ----- K1T1(10am -11am); K1T2A(2pm - 3pm); K1T2B(9am - 10am) ----- K1T1(DK1); K1T2A(BT3); K1T2B(BT3) | K1 | 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 6.2d) Solve problems related to equilibrium of a uniform rigid body, limit to 5 forces. | Discussion Thought Experiments Problem Practice | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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SHAFIQ BIN RASULAN
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 Date: 14/09/2023

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 Sarawak Matriculation College
 Date: 15/09/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

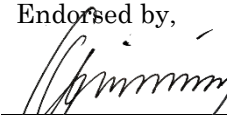
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 9 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
| CLO | | CLO2: Solve problems related to mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | |
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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

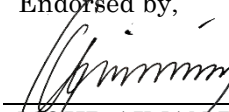
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 10 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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SHAFIQ BIN RASULAN
 Physics Lecturer
 Sarawak Matriculation College
 Date: 21/09/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 22/09/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

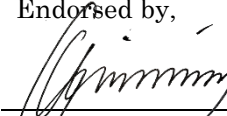
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 10 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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 Date: 21/09/2023

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 Date: 22/09/2023

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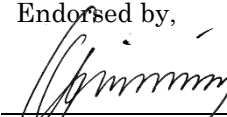
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 10 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 6: ROTATION OF RIGID BODY | | | | | | | | | | | | | | | | |
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 Physics Lecturer
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 Date: 21/09/2023

Endorsed by,



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 Head of the Physics Unit
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SEMESTER I SESSION 2023/2024

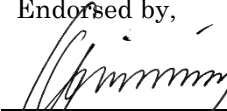
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 11 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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| <div>K1T1(Tuesday); K1T2A(Tuesday); K1T2B(Tuesday)</div> <div>K1T1(03/10/2023); K1T2A(03/10/2023); K1T2B(03/10/2023)</div> <div>K1T1(9am - 10am); K1T2A(3pm - 4pm); K1T2B(10am - 11am)</div> <div>K1T1(BT3); K1T2A(BT1); K1T2B(MF)</div> | K1 | 7.1a) Explain SHM. 7.1b) Apply SHM displacement equation (Refer Equation 12) 7.1c) Derive (without calculus) and use equations – velocity, acceleration, kinetic energy, and potential energy (Refer Equation 12) 7.1d) Emphasise the relationship between total SHM energy and amplitude. 7.1e) Apply equations of velocity, acceleration, kinetic energy and potential energy for SHM. | | <div>Discussion</div> <div>Thought Experiments</div> <div>Problem Practice</div> | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Physics Lecturer
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 Date: 28/09/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 29/09/2023

KOLEJ MATRIKULASI SARAWAK
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SEMESTER I SESSION 2023/2024

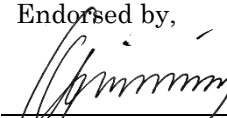
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 11 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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SEMESTER I SESSION 2023/2024

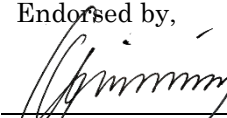
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 11 | | | | | | | | | | | | | | | |
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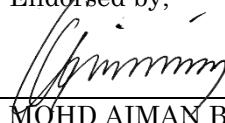
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 12 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
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| K1T1(Tuesday); K1T2A(Tuesday); K1T2B(Tuesday) ----- K1T1(10/10/2023); K1T2A(10/10/2023); K1T2B(10/10/2023) ----- K1T1(9am - 10am); K1T2A(3pm - 4pm); K1T2B(10am - 11am) ----- K1T1(BT3); K1T2A(BT1); K1T2B(MF) | K1 | 7.4a) Define wavelength. 7.4b) Define and use wave number (Refer Equation 14) 7.4c) Solve problems related to equation of progressive wave (Refer Equation 14) 7.4d) Distinguish between particle vibrational velocity and wave propagation velocity. 7.4e) Use particle vibrational velocity (Refer Equation 14) 7.4f) Use wave propagation velocity (Refer Equation 14) 7.4g) Analyse the graphs of – displacement-time and displacement-distance | Discussion Thought Experiments Problem Practice | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Date: 06/10/2023

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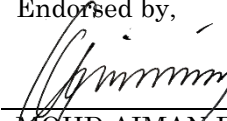
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 12 | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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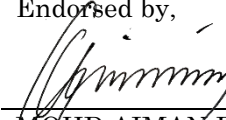
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 12 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | | |
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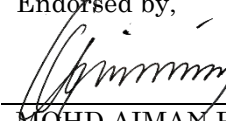
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| WEEK | | 13 | | | | | | | | | | | | | | | |
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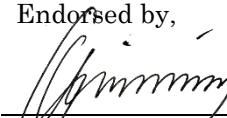
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| WEEK | | 13 | | | | | | | | | | | | | | | |
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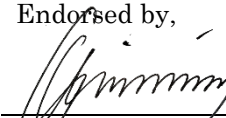
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 13 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | |
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| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| K1T1(Friday); K1T2A(Friday); K1T2B(Thursday) K1T1(20/10/2023); K1T2A(20/10/2023); K1T2B(19/10/2023) K1T1(11am - 12pm); K1T2A(10am - 11am); K1T2B(12pm-1pm) K1T1(DK2); K1T2A(MF); K1T2B(BT1) | K1 | 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) | Discussion Thought Experiments Problem Practice | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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Prepared by,



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 Date: 12/10/2023

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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 13/10/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

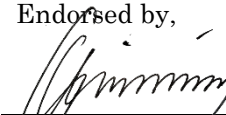
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 14 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | | | |
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 Date: 19/10/2023

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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

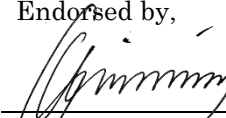
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 14 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 7: OSCILLATIONS AND WAVES | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

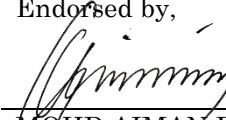
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 14 | | | | | | | | | | | | | | | | | |
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 Date: 20/10/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

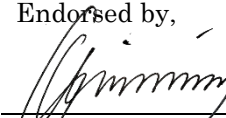
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 15 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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SHAFIQ BIN RASULAN
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 Date: 26/10/2023

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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
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 Date: 27/10/2023

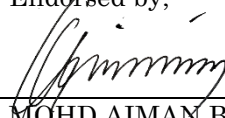
KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 15 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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 SHAFIQ BIN RASULAN
 Physics Lecturer
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 Date: 26/10/2023

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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 27/10/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 15 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | |
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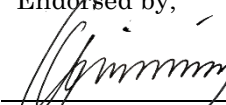
Prepared by,

SHAFIQ BIN RASULAN
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 Sarawak Matriculation College
 Date: 26/10/2023



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MOHD AIMAN BIN MOHD ADLI
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 Date: 27/10/2023



KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 16 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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 Date: 02/11/2023


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MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 03/11/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

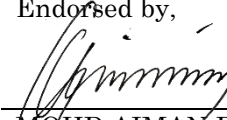
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| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 16 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 8: PHYSICS OF MATTER | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
| CLO | | CLO2: Solve problems related to mechanics, wave, matters, heat and thermodynamics | | | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | | 1 | NF2F (hour): | | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | | T&L STRATEGIES & TOOLS | REFLECTION | | REMARKS | | | | | | | | | | | | |
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Prepared by,



SHAFIQ BIN RASULAN
 Physics Lecturer
 Sarawak Matriculation College
 Date: 02/11/2023

Endorsed by,



MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 03/11/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

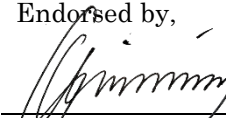
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | |
| WEEK | | 16 | | | | | | | | | | | | | | | | |
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| MODE | | Tutorial | | | | | | | | | | | | | | | | |
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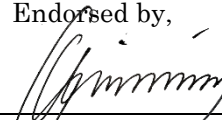
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| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | | | |
| WEEK | | 17 | | | | | | | | | | | | | | | | | |
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Prepared by,



SHAFIQ BIN RASULAN
 Physics Lecturer
 Sarawak Matriculation College
 Date: 09/11/2023

Endorsed by,



MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 10/11/2023

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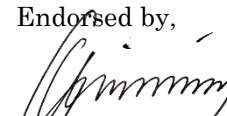
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| WEEK | | 17 | | | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter: 9: KINETIC THEORY OF GASES AND THERMODYNAMICS | | | | | | | | | | | | | | | | | |
| MODE | | Tutorial | | | | | | | | | | | | | | | | | |
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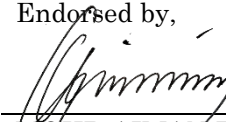
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| WEEK | | 17 | | | | | | | | | | | | | | | | | |
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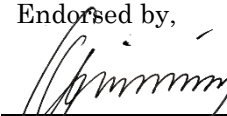
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| WEEK | | 18 | | | | | | | | | | | | | | | | |
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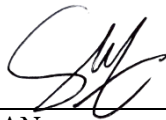


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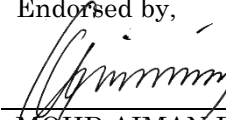
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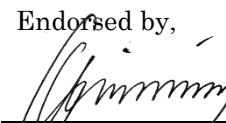
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| SLT | | F2F (hour): | | 1 | NF2F (hour): | | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | | T&L STRATEGIES & TOOLS | REFLECTION | | REMARKS | | | | | | | | | | | | |
| <div>K1T1(Friday); K1T2A(Friday); K1T2B(Thursday)</div> <div>K1T1(24/11/2023); K1T2A(24/11/2023); K1T2B(23/11/2023)</div> <div>K1T1(11am - 12pm); K1T2A(10am - 11am); K1T2B(12pm-1pm)</div> <div>K1T1(DK2); K1T2A(MF); K1T2B(BT1)</div> | K1 | 9.5a) Derive equation of work done in isothermal, isochoric and isobaric processes from P-V graph. 9.5b) Solve problem related to work done in isothermal process, isobaric process, and isochoric process (Refer Equation 25) | | <div>Discussion</div> <div>Thought Experiments</div> <div>Problem Practice</div> | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Physics Lecturer
 Sarawak Matriculation College
 Date: 16/11/2023

Endorsed by,





MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 17/11/2023

Labs

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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|--|-------|---|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 3 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 1: Physical Quantities And Measurements | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) ----- 02/08/2023(K1T1) 03/08/2023(K1T2) ----- 1100 - 1300(K1T1) 1400 - 1500(K1T2) ----- Physics Lab (Makmal Fizik) | K1 | Experiment 1: Measurement and Safety 1.3g: Measure and determine the uncertainty of physical quantities.(Experiment I : Measurement and uncertainty) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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 Date: 27/07/2023

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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 28/07/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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|--|-------|---|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 4 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 2: Kinematics Of Motions | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) ----- 09/08/2023(K1T1) 10/08/2023(K1T2) ----- 1100 - 1300(K1T1) 1400 - 1500(K1T2) ----- Physics Lab (Makmal Fizik) | K1 | Experiment 2: Free Fall & Projectile Motion 2.3c: Determine the acceleration due to gravity, g using free fall and projectile motion. (Experiment 2: Free fall and projectile motion) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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 Date: 03/08/2023


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KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024


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|---|-------|---|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 6 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 4: Work, Energy And Power | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) 23/08/2023(K1T1) 24/08/2023(K1T2) 1100 - 1300(K1T1) 1400 - 1500(K1T2) Physics Lab (Makmal Fizik) | K1 | Experiment 3: Energy 4.3b: Verify the law of conservation of energy.(Experiment 3: Energy) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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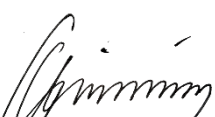
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 SHAFIQ BIN RASULAN
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 Date: 17/08/2023

Endorsed by, 
 MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 18/08/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024


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|--|-------|---|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 7 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 6: Rotation Of Rigid Body | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) ----- 30/08/2023(K1T1) 31/08/2023(K1T2) ----- 1100 - 1300(K1T1) 1400 - 1500(K1T2) ----- Physics Lab (Makmal Fizik) | K1 | Experiment 4: Rotational Motion of Rigid Body 6.3c: Determine the moment of inertia of a flywheel. (Experiment 4: Rotational motion of rigid body) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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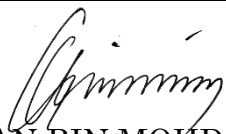
Prepared by, 
 SHAFIQ BIN RASULAN
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 Sarawak Matriculation College
 Date: 24/08/2023

Endorsed by, 
 MOHD AIMAN BIN MOHD ADLI
 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 25/08/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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|---|-------|--|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 9 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 7: Oscillations And Waves | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) 20/09/2023(K1T1) 21/09/2023(K1T2) 1100 - 1300(K1T1) 1400 - 1500(K1T2) Physics Lab (Makmal Fizik) | K1 | Experiment 5: Simple Harmonic Motion 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) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
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 Date: 14/09/2023

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 Head of the Physics Unit
 Sarawak Matriculation College
 Date: 15/09/2023

KOLEJ MATRIKULASI SARAWAK
LESSON PLAN
SEMESTER I SESSION 2023/2024

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|---|-------|---|------------------------------|---|-------------------|-------|---|--|----|--|-----|--|----|--|---|--|--|
| LECTURER | | SHAFIQ BIN RASULAN | | | | | | | | | | | | | | | |
| CODE / COURSE | | SP015 | | | | | | | | | | | | | | | |
| WEEK | | 11 | | | | | | | | | | | | | | | |
| CHAPTER | | Chapter 7: Oscillations And Waves | | | | | | | | | | | | | | | |
| MODE | | Laboratory/ Physics Practicals | | | | | | | | | | | | | | | |
| CLO | | CLO3: Apply the appropriate scientific laboratory skills in physics experiments | | | | | | | | | | | | | | | |
| SLT | | F2F (hour): | 1 | NF2F (hour): | 1 | | | | | | | | | | | | |
| DAY DATE TIME VENUE | CLASS | LEARNING OUTCOME | T&L STRATEGIES & TOOLS | REFLECTION | REMARKS | | | | | | | | | | | | |
| Wednesday (K1T1) Thursday (K1T2) 04/10/2023(K1T1) 05/10/2023(K1T2) 1100 - 1300(K1T1) 1400 - 1500(K1T2) Physics Lab (Makmal Fizik) | K1 | Experiment 6: Standing Waves 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) | Laboratory Work | <table><tr><td>ITEM *Appendix</td><td>SCORE</td></tr><tr><td>i</td><td></td></tr><tr><td>ii</td><td></td></tr><tr><td>iii</td><td></td></tr><tr><td>iv</td><td></td></tr><tr><td>v</td><td></td></tr></table> | ITEM *Appendix | SCORE | i | | ii | | iii | | iv | | v | | |
| ITEM *Appendix | SCORE | | | | | | | | | | | | | | | | |
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 Date: 28/09/2023

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 Date: 29/09/2023

