

Academic Year	2023/2024
العام الدراسي	
Term	1
الفصل	
Subject	Physics (Bridge)
الموضوع	
Grade	11
الصف	
Stream	Advanced
المسار	المتقدم
Code	C.101
Number Of MCQ	15
عدد الأسئلة الموضوعية	
Marks of MCQ	4
درجة الأسئلة الموضوعية	
Number of FRQ	5
عدد الأسئلة المقالية	
Marks Per FRQ	8
الدرجات للأسئلة المقالية	
Type of All Questions	MCQ/ الأسئلة الموضوعية FRQ/ الأسئلة المقالية
نوع كافة الأسئلة	
Maximum Overall Grade	100
الدرجة القصوى الممكنة	
Exam Duration	150 min
مدة الامتحان	
Mode of Implementation	Swift Assess & Paper-Based
طريقة التطبيق	
Calculator	Allowed
الألة الحاسبة	مسموحة



Question*	Learning Outcome/Performance Criteria**	مرجع في كتاب الطالب (النسخة الإنجليزية) Reference(s) in the Student Book (English Version)	Page
السؤال*	نواتج التعلم/ معايير الأداء**	Example/Exercise مثال/تمرين	صفحة
1	Add and subtract vectors graphically to find the resultant vectors.	Q.[1.93/1.94/1.95/1.96]	30
		Figure1.19	19
2	Find the length and direction of a two-dimensional vector from its Cartesian components.	Student Book	21
		Q.[1.67/1.77/1.101/1.99 1.100/1.101/1.102/1.103]	29-30
3	Find the angle between two position vectors in the cartesian coordinates.	Student Book	21 , 23
		Example1.5 Q.1.80	22 29
4	I. Multiply a vector with a scalar. II. Add or subtract vectors using Cartesian components.	Student Book	20
		Q.[1.76/1.79/1.105/1.106]	29
5	Differentiate between distance and displacement.	Solved Problem 2.1	35
		Q.[2.29/2.30]	61
6	Interpret motion of an object from its position-time graph.	Figure(2.18/2.19)	47/49
7	Determine a particle's instantaneous acceleration given its position as a function of time $[a_x = \frac{d}{dt} v(t) = \frac{d^2}{dt^2} x(t)]$	Student Book	40
		Q.[2.34/2.35/2.37]	61
8	I. Differentiate between average and instantaneous velocity. II. Calculate the average velocity/average speed.	Example2.2	39
		Q.[2.31/2.32/2.33]	61
9	Determine a particle's change in position by finding the area under the curve on a graph of velocity versus time.	Q.[2.42/2.52]	61/62
10	I. Interpret motion of an object from its position-time graph. II. Describe the motion of an object in a straight line with constant acceleration.	Q.[2.26/2.76]	60/63
11	I. Solve problems related to graphical integration in motion analysis. II. Apply, in the direction of motion, the constant-acceleration equations to relate acceleration, velocity, position, and time for an object moving with constant acceleration	Q.[2.12/2.26/2.76]	59 60/63
12	Apply the constant-acceleration equations to free-fall motion	Q.[2.66/2.67/2.68/2.69]	63
13	I. Define maximum height, range of a projectile and time of flight. II. Calculate the maximum height, range of a projectile and the time of flight for a projectile	Q.[3.41/3.43/3.47]	87
14	Determine direction and magnitude of a frictional force	Student Book	108-110
		Example 4.6 Q.4.57	110 124
15	Realize that in two or three dimensions, an acceleration vector arises if an object's velocity vector changes in magnitude or direction.	Student Book	68
16	I. Add or subtract vectors using Cartesian components. II. Calculate the Cartesian components of a two-dimensional vector from the length and angle with respect to the x-axis	Solved Problem1.3	24-25
		Q.(1.93/1.94/1.95/1.67 1.68/1.104)	29/30
17	I. Given a particle's position vector as a function of time, Determine its instantaneous velocity vector. II. Calculate the components of a velocity vector by the time derivative of the position vector. III. Calculate the average speed/average velocity.	Example2.1	38
		Q [2.13/2.14/2.15/2.16 2.26/2.33/2.42/2.76]	60/61 63
18	I. Describe the motion of an object under free fall. II. Interpret motion graphs for objects under free fall. III. Apply the constant-acceleration equations to free-fall motion	Solved Problem 2.5 Example/2.5	52/53/54
		Q [2.66/2.67/2.68/ 2.69/2.70/2.72/2.73]	63
19	I. Calculate the launch velocity, launch angel from given data for an instant during the flight. II. Calculate the components as well as net velocity of a projectile at any point of its trajectory. III. Calculate the particle's position, displacement, and velocity at a given instant during the flight given the launch velocity.	Q.[3.41/3.46/3.47/3.48]	87
20	I. Draw free-body diagrams and apply Newton's second law for objects on horizontal, vertical, or inclined planes in situations involving friction. II. Distinguish between friction in a static situation and a kinetic situation. III. Relate the magnitude of static or dynamic frictional forces to the magnitude of the normal force through the coefficient of static or kinetic friction. IV. Describe an object in static equilibrium and dynamic equilibrium	Solved problem 4.1	104
		Example/4.6 Q.4.48 Q.4.81	110 123 125
*	Questions might appear in a different order in the actual exam, or on the exam paper.		
*	قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، أو على ورقة الامتحان		
**	As it appears in the textbook, LMS, and (Main_IP).		
**	كما وردت في كتاب الطالب و LMS والخطة الفصلية		