

Academic Year	2022/2023
العام الدراسي	
Term	1
الفصل	
Subject	Physics
المادة	فيزياء
Grade	11
الصف	
Stream	Advanced
المستند	
Number of Main Questions	20
عدد الأسئلة الأساسية	
Marks per Main Question	5
الدرجات لكل سؤال أساسي	
Number of Bonus Questions	5
عدد الأسئلة الإضافية	
Marks per Bonus Question	4
الدرجات لكل سؤال إضافي	
Type of All Questions	MCQ
نوع كافة الأسئلة	اختيار من متعدد
Maximum Overall Grade*	100
الدرجة القصوى الممكنة*	
Exam Duration	120 minutes
مدة الامتحان	
Mode of Implementation	SwiftAssess
طريقة التطبيق	SwiftAssess
Calculator	Allowed
الآلة الحاسبة	مسموحة

Question**	Learning Outcome***	Reference(s) in the Student Book (Arabic / English Version)	
		المراجع في كتاب الطالب (النسخة العربية / الإنجليزية)	Page
السؤال**	نتائج التعلم***	Example/Exercise	الصفحة
		مثال/تمرين	
الأسئلة الأساسية - Main Questions	1	Calculate the maximum height, range of a projectile and the time of flight for a projectile	3.14, 3.71, 3.85
			89 and 85
	2	Calculate the average acceleration for objects whose velocity is either changing in magnitude or direction	2.9, 2.68, 2.72 example and solved problem 2.5
			52, 53, 63, 59
	3	Explain the magnitudes and directions of the velocity and acceleration components during the flight on a sketch of the path taken in projectile motion	3.4, 3.3, 3.15,3.13,3.18
			85
	4	Calculate the particle's position, displacement, and velocity at a given instant during the flight given the launch velocity	2.11, 2.59, 293, 286
			61, 63 and 64
	5	Solve problems related to position and displacement	2.3, 2.4, 2.6, 2.10
			59
	6	Given a graph of a particle's position versus time, determine the instantaneous velocity for any particular time	figures in sections 2.3 & 2.4
			37, 38, 40
	7	Determine the instantaneous acceleration for any particular time and the average acceleration between any two particular times given a graph of a particle's velocity versus time	2.39, 2.42
			61
	8	Determine a particle's instantaneous acceleration given its position as a function of time (ax=d2x/dt2)	2.37, 2.34, 2.97
			61 and 64
	9	Apply the constant-acceleration equations to free-fall motion	2.67, 2.66, 2.68
			63
	10	Calculate the velocity of an object with respect to a stationary laboratory reference frame using a Galilean transformation of the velocity	Example 3.3, 3.4, 3.5
			81, 82, 83
	11	Represent displacement in terms of the position vector	solved problem 1.3, 1.103
			24, 30
الأسئلة الإضافية - Bonus Questions	12	Describe the different types of forces experienced in daily life, like contact force, tension, compression, normal force, friction force and spring force	As mentioned in the book
			92
	13	Describe the fundamental forces like Gravitational forces, electromagnetic forces, strong forces and weak forces	As mentioned in the book
			93
	14	Identify that the weight of a body (on Earth) is the magnitude of a force that acts on the body due to its gravitational interaction with the Earth, and equals the net force required to prevent the body from falling freely as measured from the reference frame of the ground.	As mentioned in the book 4.4, 4.15
			94, 121
	15	Explain the magnitudes and directions of the velocity and acceleration components during the flight on a sketch of the path taken in projectile motion	As shown in the figures
			71,72
	16	Find the net force on an object as the vector sum of all the forces acting on the object Find the Cartesian components of the net force acting on an object	4.11, 4.33
			121,122
	17	Apply Newton's second law to a free-body diagram of an object that moves vertically or on a horizontal or inclined plane (without friction)	4.31, 4.70
			125, 122
	18	Explain Newton's third law of motion and identify force pairs	As mentioned i the book
			99
	19	Determine the magnitude and direction of the normal force on an object when the object is pressed or pulled onto a surface Relate the magnitude of static or dynamic frictional forces to the magnitude of the normal force through the coefficient of static or kinetic friction.	solved problem 4.4, 4.80
			116, 125
	20	State Newton's Second law and calculate the acceleration of an object moving in one dimension when a single constant force (or a net constant force) acts on the object during a known interval of time	4.24, 4.31
			122
	21	A learning outcome from the SoW**** نتائج من الخطة الفصلية****	Undisclosed غير معان
	22	A learning outcome from the SoW نتائج من الخطة الفصلية	Undisclosed غير معان
	23	A learning outcome from the SoW نتائج من الخطة الفصلية	Undisclosed غير معان
	24	A learning outcome from the SoW نتائج من الخطة الفصلية	Undisclosed غير معان
	25	A learning outcome from the SoW نتائج من الخطة الفصلية	Undisclosed غير معان
	*	While the overall number of marks is 120 (20*5=100 for main questions and 5*4=20 for bonus questions), the student's final grade will be out of 100. Example: if a student answers correctly 10 main and 2 bonus questions, (s)he receives a grade of 10*5+2*4=58, while if (s)he answers correctly 19 main and 3 bonus questions, (s)he scores a total of 19*5+3*4=107 which will be reported as 100 (maximum possible grade).	
	*	مع أن مجموع العلامات الكلية هو 120 (20*5=100 من الأسئلة الأساسية و5*4=20 من الأسئلة الإضافية)، فإن درجة الطالب (ة) النهائية تحسب من 100. مثال: إذا أجاب(ت) الطالب(ة) بشكل صحيح عن 10 أسئلة أساسية وسؤالين إضافيين، (ت)أصل(ت) درجة 10*5+2*4=58 بينما إذا أجاب(ت) بشكل صحيح عن 19 سؤالاً أساسياً وثلاث أسئلة إضافية (ت)أصل(ت) مجموع 19*5+3*4=107 ما يُؤخذ إلى الدرجة 100 (الدرجة القصوى الممكنة).	
	**	Questions might appear in a different order in the actual exam, and bonus questions will be clearly marked on the system (or on the exam paper in the case of G3 and G4).	
	**	قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، وسيتم تحديد الأسئلة الإضافية بشكل واضح على النظام (أو على ورقة الامتحان في حالة الصفين G3 وG4).	
	***	As it appears in the textbook, LMS, and scheme of work (SoW).	
	***	كما وردت في كتاب الطالب وLMS والخطة الفصلية.	
	****	The 5 bonus questions will target LOs from the SoW. These LOs can be within the ones used for the 20 main questions or any other ones listed in the SoW.	
	****	الأسئلة الإضافية الخمس تستهدف نواتج تعلم من الخطة الفصلية. هذه النواتج قد تكون من ضمن النواتج المستهدفة عبر الأسئلة الأساسية العشرين أو أي نواتج أخرى عظملة في الخطة الفصلية.	
