Academic Year العام الدراسي	2023/2024
Term الفصل	2
Subject المادة	Physics- Inspire الفيزياء
Grade الصف	9
Stream المسار	Advanced المتقدم
Number of MCQ عدد الأسئلة الموضوعية	15
Marks of MCQ درجة الأسئلة الموضوعية	4
Number of FRQ عدد الأسئلة المقالية	5
Marks per FRQ الدرجات للأسئلة المقالية	
Type of All Questions نوع كافة الأسئلة	الأسئلة الموضوعية /MCQ الأسئلة المقالية /FRQ
Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - مدة الامتحان	150 minutes
Mode of Implementation - طريقة التطبيق	Paper-Based
Calculator الآلة الحاسبة	Allowed مسموحة

	Question* السؤال*	Learning Outcome/Performance Criteria** نتائج التعلم/ معايير الأداء**	Reference(s) in the Student Book المرجع في كتاب الطالب Example/Exercise مثال/تمرين	 Page الصفحة
الأسئلة الموضوعية - MCQs	1	Explain the motion of horizontally launched projectiles, and show schematically the components of velocity and acceleration throughout the motion.	7, 8	147
	2	Define the friction force as a type of force between two touching surfaces, and determine its direction.	figure 10	122
	3	1.Recall that for an object to be in equilibrium, the net force acting on it should be zero.	as mentioned in the book	128
	4	Solve problems related to friction	19, 20	127
	5	Determine the components of a vector in cartesian coordinate system using trigonometry	example 2	120
	6	Use free body diagrams to compare the direction of an object's acceleration with the direction of the unbalanced force exerted on the object	1,2,3,4	87
	7	Combine forces to find the net force acting on an object Relate the direction of the acceleration to the direction of the net force	34, 36,37	105
	8	Relate the direction of the acceleration to the direction of the net force	figure 5	88
	9	Resolve a vector into two orthogonal vectors in cartesian coordinate system.	11, 12,13	121
	10	Relate graphically the frictional force to the normal force and find the coefficient of kinetic Friction.	figure 12	123
	11	Apply the relationships that relate the normal force to maximum static friction and to kinetic friction to calculate unknown parameters like friction force, coefficient of friction or the normal force (Ff,static= sN and Ff,kinetic= kN).	example 3, Q15,16	125
	12	Describe the apparent weight for an object accelerating vertically upward or downward (starts from rest, reaches a constant speed, then comes to a stop)	figure 11, example 3	96, 97
	13	Apply Newton's Laws along x and y axes for an object that moves on an inclined plane with and without friction.	example 5, Q29, 31	131
	14	Determine the magnitude and direction of the resultant of two vectors in two dimensions using trigonometry, the Pythagorean theorem (case of perpendicular vectors), and the laws of sines and cosines.	example 1, Q1 &2	116
	15	Explain the motion of horizontally launched projectiles, and show schematically the components of velocity and acceleratio	figure 2, 3	141,142
الأسئلة المقالية - FRQs	16	Demonstrate by experiments that acceleration of an object is directly proportional to the force applied and inversely proportional to the mass of the object State Newton's second law of motion and write it in equation form (a=Fnet/m)	as mentioned in the textbook	90
	17	Apply Newton's Second Law to solve numerical problems	33, 37	133
	18	List the characteristics of the interaction pair and identify the action-reaction pairs for different situations	figure 17 and 18	103
	19	Apply Newton's laws to solve problems involving normal and tension forces including systems of objects connected by strings and Atwood's machine	example 5	104
	20	Explain the motion of projectiles launched at an angle with the horizontal, and show schematically the components of velocity and acceleration throughout the motion.	example 1, Q1 &2	144

* Questions might appear in a different order in the actual exam, or on the exam paper in the case of G3 and G4.

* قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، أو على ورقة الامتحان في حالة الصفين G3 و G4.

** As it appears in the textbook, LMS, and (Main_IP).

** كما وردت في كتاب الطالب وLMS والخطة الفصلية .