Academic Year العام الدراسي	2023/2024
Term الفصل	1
Subject المادة	Physics/AP
Grade الصف	12
Stream المسار	Elite النخبة
Number of MCQ عدد الأسئلة الموضوعية	15
Marks per MCQ درجة الأسئلة الموضوعية	4
Number of FRQ عدد الأسئلة المقالية	5
Marks per FRQ الدرجات للأسئلة المقالية	5 to 9 points***
Type of All Questions نوع كافة الأسئلة	MCQ/ الأسئلة الموضوعية FRQ/ الأسئلة المقالية
Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - مدة الامتحان	150 minutes
Mode of Implementation -طريقة التطبيق	SwiftAssess & Paper-Based
Calculator الآلة الحاسبة	Allowed مسموحة

	Question* السؤال*	Learning Outcome/Performance Criteria** ناتج التعلم/ معايير الأداء**	Reference :Hard Copy Student Textbook : Elite Program : Physics : United Arab Emirates Edition : Grade 12 Elite : 2023-2024 المرجع في كتاب الطالب (النسخة العربية) Example/Exercise مثال/تمرين	Reference page for related theory الصفحة
MCQ - الأسئلة الموضوعية	1	Use the definition of the capacitor to describe changes in the capacitance value when a dielectric is inserted between the plates.	Example Questions PDF on LMS	101 to 102
	2	Describe the relationship between current, potential difference, and resistance of resistor using Ohm's Law.	Example Questions PDF on LMS	121
	3	Describe the proper use of an ammeter and a voltmeter in an experimental circuit and correctly demonstrate or identify these methods in a circuit diagram.	Example Questions PDF on LMS	153
	4	Identify when conventional circuit reduction methods can be used to analyze a circuit and when Kirchhoff's Rules must be used to analyze a circuit.	Example Questions PDF on LMS	146
	5	Sketch the trajectory of a known charged particle placed in a known uniform electric field.	Example Questions PDF on LMS	39 to 41
	6	Describe the relative magnitude and direction of an electrostatic field given a diagram of equipotential lines.	Example Questions PDF on LMS	77 to 78
	7	Calculate unknown quantities such as charge, potential difference, charge density, electric field, and stored energy when a conducting slab is placed in between the plates of a charged capacitor or when the plates of a charged capacitor are moved closer or farther apart.	Example Questions PDF on LMS	90 to 91
	8	Describe the consequence of the law of electrostatics and that it is responsible for the other law of conductors (that states there is an absence of an electric field inside of a conductor).	Example Questions PDF on LMS	45
	9	Use the general relationship between electric field and electric potential to calculate the relationships between the magnitude of electric field or the potential difference as a function of position.	Example Questions PDF on LMS	77
	10	Calculate changes in energy, charge, or potential difference when a dielectric is inserted into a capacitor that is attached to a source of potential difference.	Example Questions PDF on LMS	97 and 102
	11	Calculate different rates of heat production for different resistors in a circuit.	Example Questions PDF on LMS	134
	12	In transient circuit conditions (i.e., RC circuits), calculate the time constant of a circuit containing resistors and capacitors arranged in series.	Example Questions PDF on LMS	156
	13	Calculate unknown quantities such as the force acting on a specified charge or the distances between charges in a system of static point charges.	Example Questions PDF on LMS	10 to 13
	14	Calculate the resistance of a conductor of known resistivity and geometry.	Example Questions PDF on LMS	123
	15	Calculate the equivalent capacitance for capacitors arranged in series or parallel, or a combination of both, in steady-state situations.	Example Questions PDF on LMS	94 to 95
FRQ - الأسئلة المقالية	16	Explain or interpret an electric field diagram of a system of charges.	Example Questions PDF on LMS	27 to 30
	17	Calculate quantities such as charge, potential difference, capacitance, and potential energy of a physical system with a charged capacitor. Calculate physical quantities such as charge, potential difference, electric field, surface area, and distance of separation for a physical system that contains a charged parallel-plate capacitor.	Example Questions PDF on LMS	97 90 to 92
	18	Calculate the work done or changes in kinetic energy (or changes in speed) of a charged particle when it is moved through some known potential difference.	Example Questions PDF on LMS	63
	19	Describe and calculate the electric field due to a dipole or a configuration of two or more static-point charges. Calculate the value of the electric potential in the vicinity of one or more point charges.	Example Questions PDF on LMS	30 to 31 72 to 73
	20	Calculate the terminal voltage and the internal resistance of a battery of specified EMF and known current through the battery.	Example Questions PDF on LMS	128 to 129

* 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 وG4.

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

** كما وردت في كتاب الطالب وLMS والخطة الفصلية.

*** In FRQ section each point equals 1.25 marks therefore marks range from 6 to 12 marks