

Academic Year	2022/2023	Question**	Learning Outcome***	Reference :Hard Copy Student Textbook : Advanced Sciences Program : Physics : United Arab Emirates Edition : Grade 12 Elite : 2022-2023 المرجع في كتاب الطالب (النسخة العربية)	Page المصفحة
Term	3	**السؤال	***ناتج التعلم	Example/Exercise مثال/تمرين	
Subject	Physics AP الرياضيات/ فيزيك	1	Define Coulomb's Law	Example Question A1a and A1b	Example Questions EOT3 PDF on LMS
Grade	11	2	Define electric field strength	Example Question A2a and A2b	Example Questions EOT3 PDF on LMS
Stream	Elite التخية	3	Apply Pythagoras's theorem	Example Question A3a and A3b	Example Questions EOT3 PDF on LMS
Number of Main Questions عدد الأسئلة الأساسية	Part (1) - 6 Part (2) - 12 Part (3) - 1	4	Describe that the electric field between parallel plates is uniform and apply the equation for the electric field between parallel plates, $E=\Delta V/d$	Example Question A4a and A4b	Example Questions EOT3 PDF on LMS
Marks per Main Question الدرجات لكل سؤال أساسي	Part (1) - 5 Part (2) - 4.16 Part (3) 20	5	Convert between prefixes and scientific notation and vice versa	Example Question A5a and A5b	Example Questions EOT3 PDF on LMS
****Number of Bonus Questions عدد الأسئلة الإضافية	1	6	Describe how an object becomes charged by the gain or loss of electrons and describe charging by friction.	Example Question A6a and A6b	Example Questions EOT3 PDF on LMS
Marks per Bonus Question الدرجات لكل سؤال إضافي	10	7	Describe behavior of charges or system of charged objects interacting with each other.	Electroscope paragraphs Example Question B1a and B1b	8 - 9 Example Questions EOT3 PDF on LMS
*** Type of All Questions نوع كافة الأسئلة	Part(1 and 2) MCQ Part (3) FRQ	8	Explain and/or describe the behavior of a neutral object in the presence of a charged object or a system of charges.	Electric Charge Example Question B2a and B2b	3 Example Questions EOT3 PDF on LMS
* Maximum Overall Grade *الدرجة القصوى الممكنة	110	9	Calculate the net electrostatic force on a single point charge due to other point charges	Exercises Q1.48 Example Question B3a and B3b	23 Example Questions EOT3 PDF on LMS
Exam Duration - امتحان - مدة	90 minutes- SwiftAssess 60 minutes - Paper-Based	10	Using the definition of electric field, unknown quantities (such as charge, force, field, and direction of field) can be calculated in an electrostatic system of a point charge or an object with a charge in a specified electric field	Equation 2.1 Example Question B4a and B4b	27 Example Questions EOT3 PDF on LMS
Mode of Implementation - طريقة التطبيق	SwiftAssess & Paper-Based	11	Describe and calculate the electric field due to a single point charge	Exercises Q2.25 Example Question B5a and B5b	55 Example Questions EOT3 PDF on LMS
Calculator الآلة الحاسبة	Allowed مسموحة	12	Describe and calculate the electric field due to a dipole or a configuration of two or more static-point charges	Example 2.1 Example Question B6a and B6b	30 - 31 Example Questions EOT3 PDF on LMS
		13	Explain or interpret an electric field diagram of a system of charges	Concept check 2.1 Example Question B7a and B7b	30 Example Questions EOT3 PDF on LMS
		14	Determine the qualitative nature of the motion of a charged particle of specified charge and mass placed in a uniform electric field.	Force due to an Electric Field paragraphs Example Question B8a and B8b	37 Example Questions EOT3 PDF on LMS
		15	Derive expressions for the electric field of specified charge distributions using integration and the principle of superposition. Examples of such charge distributions include a uniformly charged wire, a thin ring of charge (along the axis of the ring), and a semicircular or part of a semicircular arc.	Solved problem 2.1 Example Question B9a and B9b	35 - 36 Example Questions EOT3 PDF on LMS
		16	Describe an electric field as a function of distance for the different types of symmetrical charge distributions.	Spherical Symmetry paragraphs Example Question B10a and B10b	48 - 51 Example Questions EOT3 PDF on LMS
		17	Calculate the electric flux through an arbitrary area or through a geometric shape (e.g., cylinder, sphere).	Electric Flux paragraphs Gauss's Law paragraphs Example Question B11a and B11b	42 43 Example Questions EOT3 PDF on LMS
		18	Calculate the flux through a rectangular area when the electric field is perpendicular to the rectangle and is a function of one position coordinate only	Electric flux paragraphs Example Question B12a and B12b	42 Example Questions EOT3 PDF on LMS
		19	Calculate unknown quantities such as the force acting on a specified charge or the distances between charges in a system of static point charges.	Based on Term 3 Science Laboratory Assessment Solved problem 1.1 Example Question FRQ1	14 - 15 Example Questions EOT3 PDF on LMS
		20	A learning outcome from the SoW**** ناتج من الخطة الفصلية****	Undisclosed غير معلن	Undisclosed غير معلن
		*	While the overall number of marks is 110, the student's final grade will be out of 100. Example: If a student scores 75 on the exam, the mark will be 75 and if (s)he scores 107, it will be reported as 100 (maximum possible grade).		
		*	مع أن مجموع العلامات الكاملة هو 110، فإن درجة الطالب (ة) النهائية تحسب من 100. مثال: إذا كانت درجة الامتحان 75، ستبقى كما هي بينما إذا كانت درجة الامتحان 107 ستكون 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 و G4).		
		***	As it appears in the textbook, LMS, and scheme of work (SoW).		
		***	كما وردت في كتاب الطالب وLMS والخطة الفصلية.		
		****	The 1 bonus questions will target LOs from the SoW. These LOs can be within the ones used for the main questions or any other ones listed in the SoW.		
		****	ستستهدف الأسئلة الإضافية نواتج التعلم من الخطة الدراسية. يمكن أن تكون النواتج التعليمية هذه ضمن تلك المستخدمة للأسئلة الرئيسية أو أي أسئلة أخرى مدرجة في الخطة الدراسية.		