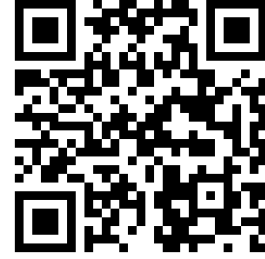


شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



نموذج الهيكل الوزاري الجديد المسار المتقدم بريدج

[موقع المناهج](#) ← [المناهج الإماراتية](#) ← [الصف الثاني عشر المتقدم](#) ← [فيزياء](#) ← [الفصل الثالث](#) ← [الملف](#)

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم



روابط مواد الصف الثاني عشر المتقدم على تلغرام

[الرياضيات](#)

[اللغة الانجليزية](#)

[اللغة العربية](#)

[التربية الاسلامية](#)

المزيد من الملفات بحسب الصف الثاني عشر المتقدم والمادة فيزياء في الفصل الثالث

<a href="#">حل أسئلة الامتحان النهائي الالكتروني</a>	1
<a href="#">دليل تصحيح أسئلة الامتحان النهائي الورقي بريدج</a>	2
<a href="#">أسئلة الامتحان النهائي الورقي بريدج</a>	3
<a href="#">الأسئلة الكتابية المتوقعة في الامتحان النهائي</a>	4
<a href="#">حل نموذج امتحان تجريبي حسب المخرجات المطلوبة للامتحان</a>	5

Academic Year	2022/2023
المعلم الدراسي	
Term	3
المصطلح	
Subject	Physics/Bridge
المادة	الفيزياء / جسر
Grade	
المستوى	12
Stream	Advanced
المسار	المتقدم
Number of Main Questions	Part (1) - 6
عدد الأسئلة الرئيسية	Part (2) - 10
	Part (3) - 4
Marks per Main Question	Part (1) - 5
النقاط لكل سؤال رئيسي	Part (2) - 5
	Part (3) - 5
****Number of Bonus Questions****	2
****Marks per Bonus Question****	5
****Type of Qs Questions****	Part (1) and (2) MCQ
	Part (3) FRQ
Maximum Overall Grade	110
الدرجة القصوى الممكنة	
Exam Duration	150 minutes
مدة الامتحان	
Mode of Implementation	SwiftAccess & Paper-Based
طريقة التطبيق	
Calculator	Allowed
آلة حاسبة	مسموحة



Question	Learning Outcome (Topic)	Reference(s) in the Student Book	
		المراجع في كتاب الطالب	Page
1	Feraday's Experiments Describe experiments to show that changing magnetic field inside a conducting loop induces a current in the loop.	As mentioned in the textbook	224
2	Magnetic Flux Calculate the magnetic flux (Φ) through a given surface.	As mentioned in the textbook	227-228
3	Induced potential difference Describe, based on the equation of Faraday's Law, that potential difference could be induced in a loop either by varying the magnetic field 'B' with time (A and B are constant), changing the area 'A' of the loop with time (B and A are constant), or changing the angle 'θ' between the magnetic field and the normal to the loop with time (A and B are constant), and demonstrate that by mathematical equations.	As mentioned in the textbook	229-230
4	Lenz's Law State Lenz's Law as: 'No induced current in a loop will have a direction such that the magnetic field due to the induced current opposes the change in the magnetic flux that induces the current' Induced Potential Difference and Wire Moving in a Magnetic Field Solve problems related to Lenz's Law, and motional emf	As mentioned in the textbook	232-237
5	Induced potential difference as a function of time for a generator Describe how direct and alternating potential differences are induced in a DC and an AC generator through different connections between the rotating loop and the external circuit.	As mentioned in the textbook	238-240
6	Generators and Motors Identify electric generators and electric motors as everyday applications of electromagnetic induction and electromagnetic force.	As mentioned in the textbook	239-246
7	Induced Electric Field Solve problems related to induced electric field by changing magnetic flux.	As mentioned in the textbook	240-241
8	Self Inductance Define the inductance of a device as a measure of its opposition to changes in current flowing through it, measured in Henry (H)	As mentioned in the textbook	240-241
9	Inductance of a solenoid Show that the flux linkage is proportional to the current in a solenoid, given by where L is the inductance of a solenoid	As mentioned in the textbook	240-241
10	Self Induction Define self-induction and mutual induction	As mentioned in the textbook	242
11	Mutual Induction Solve problems related to self-induction and mutual induction	As mentioned in the textbook	242-244
12	RL circuit Compare (RL) in RL circuit Calculate the inductive time constant (τL) for an RL circuit	As mentioned in the textbook	245-246
13	RL circuit Interpret the equations related to RL circuit	As mentioned in the textbook	246-247
14	Energy Stored Calculate the energy stored in the magnetic field of an inductor Solve problems related to energy stored in a magnetic field	As mentioned in the textbook	247-248
15	LC Circuit Sketch graphs for an LC oscillator showing the variations of charge, current, electric energy, and magnetic energy as functions of time, and the period of oscillation (T)	As mentioned in the textbook	258-260
16	Alternating current circuit Describe the alternating (AC) current, induced in a circuit containing a sinusoidal time-varying source of emf	As mentioned in the textbook	264-265
17	Single-Loop circuit with a resistor and a source of time-varying emf Draw a phasor diagram showing the phase for the time-varying current and the phase for the time-varying voltage across the resistor for a circuit containing a resistor and a source of time-varying emf	As mentioned in the textbook	264-265
18	Power dissipated in a transmission line Calculate dissipated power in the power line	As mentioned in the textbook	279
19	Transformer Apply the ideal transformer equation ( $\frac{V_1}{V_2} = \frac{N_1}{N_2}$ ) to solve numerical problems.	As mentioned in the textbook	280-281
20	Electromagnetic Laws Describe Maxwell's equations as four fundamental equations that represent the basis of all electric, magnetic, and electromagnetic phenomena	As mentioned in the textbook	290
21	Unassessed		
22	Unassessed		
**	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 (she scores 107, it will be reported as 100 (maximum possible grade). مع أن مجموع النقط الكلي هو 110، فإن درجة الطالب (أو الطالبة) التي تسجلها ستكون 100 (الدرجة القصوى الممكنة). مثال: إذا كانت درجة الطالب 75، ستظهر كـ 75، وإذا كانت درجة الطالب 107، ستظهر كـ 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 بأترتيب مختلف في الامتحان الفعلي، وسيتم تمييز الأسئلة الإضافية بوضوح على النظام أو على ورقة الامتحان في حالة العناوين G3 و G4.		
***	As it appears in the textbook, LMS, and scheme of work (SOW).		
***	كما ويظهر في كتاب الطالب وللمنظمة التعليمية.		
****	The 2 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.		
****	سنتين الأسئلة الإضافية ستهدف لنواتج التعلم من المنهج الدراسي. يمكن أن تكون النواتج التعليمية هذه ضمن تلك المستخدمة للأئلة الرئيسية أو لأي أسئلة أخرى مدرجة في المنهج الدراسي.		