الهيكل الامتحاني الوزاري الجديد منهج بريدج الخطة C

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر المتقدم ← فيزياء ← الفصل الثاني ← ملفات المدرس ← الملف
تاريخ إضافة الملف على موقع المناهج: 2025-02-13 18:48:08

المزيد من مادة فيزياء:	ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

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

مراجعة الوحدة السادسة دوائر التيار المستمر	1
عرض بوربوينت شرح القسم السادس المغناطيسية	2
عرض بوربوينت شرح المجالات المغناطيسية للتيار الكهربائي المستمر	3
عرض بوربوينت درس التيار والمقاومة	4
عرض بوربوينت درس دائرة تحتوي على مقاومة ومكثف	5

			Academic Year	2024/2025
			العام الدراسي	

Term	
الفصل	2

Subject	Physics/Bridge C.102
المادة	الفيزياء/ بريدج

Grade	12
الصف	
Stream	Advanced
المسار	المتقدم

Number of Questions	SWIFT 15
عدد الأسئلة	Paper Part 5

Type of All Questions	SWIFT: MCQ
نوع كافة الأسئلة	Paper Part: FRQ

Maximum Overall Grade	100
الدرجة القصوى الممكنة	

Mode of Implementation -	SwiftAssess
طريقة التطبيق	& Paper-Based

Calculator	Allowed
الآلة الحاسبة	مسموحة

Exam Duration -	150 minutes
مدة الإمتحان	

Part	Question	Learning Outcome*	Reference(s) in the Student Book	
الجزء	السؤال	نتائج التعلم*	Example/Exercise المرجع في كتاب الطالب مثال/تمرين	Page الصفحة
SWIFT	1	Show that by definition the electric current is related to net charge through the equation between current and charge related to time .... Apply the relations to calcuate electric current at a point and the (i=dq/dt) net amount of charge passing a given point in time t.	As mentioned in the textbook	117
SWIFT	2	Define the current density J as the current per unit area flowing through a conductor.	As mentioned in the textbook	119
SWIFT	3	Apply the equation (R=ρL/A) in solving problems to calculate an unknown quantity given the other quantities. Analyse the equation (R=ρL/A)	As mentioned in the textbook As mentioned in EXCERCISE 5.32	121-123 141
SWIFT	4	Recall and apply Ohm's Law (i=ΔV/R).	As mentioned in Self-Test Opportunity 5.2	125- 127
SWIFT	5 6	Calculate the equivalent resistance for resistors connected in series as the sum of their individual resistances. Calculate the equivalent resistance for resistors in parallel arrangements ($1/R_{eq}=1/R_1+1/R_2+..$).	As mentioned in FIGURE 5.12 As mentioned in Concept Check 5.6	127- 128 130-133
SWIFT	7	Apply the equations of power ($P=I\Delta V$) for any electric device and ($I(P=I^2R=(\Delta V)^2/R)$ r a resistor to solve numerical problems.	As mentioned in the textbook As mentioned in EXCERCISE 5.57 b	134 143
SWIFT	8	State Kirchhoff's junction rule: "The sum of the currents entering a junction must equal the sum of the currents leaving the junction" Calculate the equivalent resistance for resistors in parallel arrangements ($1/R_{eq}=1/R_1+1/R_2+..$).	As mentioned in Concept Check 6.1	146-147
SWIFT	9	Recall that in a single loop circuit, the current is the same everywhere in the circuit Analyze single loop circuits containing two sources of emf and circuit elements	As mentioned in FIGURE 6.8	148-149
SWIFT	10	Recall that an ammeter is a device used to measure current and voltmeter is a device used to measure potential difference Recall that an ammeter is wired in a circuit in series Recall that a voltmeter is wired in parallel with the component across which the potential difference is to be measured Identify that ammeters are designed to have as low resistance as possible, so they do not have an appreciable effect on the currents they measure Identify that voltmeters are designed to have as high resistance as possible, so they have a negligible effect on the potential differences the ymeasure	As mentioned in FIGURE 6.8	148-149
SWIFT	11	Apply the relationship giving the charge as a function of time for a capacitor in a charging RC circuit ($q(t) = q_f(\tau(t) - t)_{max}(1-e^{-t/\tau})$) Apply the relationship giving the charge as a function of time for a capacitor in a discharging RC circuit ($q(t) = q_m(q(t) = q_{i...e^{-t/\tau}})$)	As mentioned in EXAMPLE 6.3	155-157
SWIFT	12	Identify that the magnetic field vector is always tangent to the magnetic field lines Identify that the magnetic field lines and the poles of permenant magnet	As mentioned in FIGURE 7.5	170-171
SWIFT	13	Solve problems related to torque on a current-carrying loop	As mentioned in the textbook	184-185
SWIFT	14	Sketch a current element) in a wire and indicate the direction of the magnetic field that it sets up at a given point near the wire located by theposition vector. State and explain Biot-Savart's law	As mentioned in the textbook As mentioned in FIGURE 8.2	196-197
SWIFT	15	Recall that the SI unit of magnetic field strength is Tesla (T) Apply the equation to determine the magnitude of the magnetic field at a perpendicular distance r⊥ from a long straight current-carrying wire.	As mentioned in the textbook	174 198

Important note: Please pay attention to specifying the units of measurement when solving problems, as grades will be calculated based on the units.
Drawing relationships between variables, identifying and drawing the best fit line connecting the points, and finding values from the graph.
ملاحظة هامة: يرجى ضرورة الاهتمام بتحديد وحدات القياس عند حل المسائل، حيث سيرصد درجات على الوحدات كما يرجى تدريب الطلبة على رسم العلاقات بين متغيرات وتحديد أفضل خط يصل بين النقاط وايجاد قيم من الرسم البياني

Paper part	1	Distinguish between ohmic and non-ohmic resistors and give examples. Recall and apply Ohm's Law (i=ΔV/R).	As mentioned in the textbook As mentioned in FIGURE 5.2	125-127
Paper part	2	Calculate currents, voltages, and equivalent resistances for circuit arrangements containing resistors in series and in parallel. Solve problems involving resistors connected in series and in parallel in a circuit.	As mentioned in the textbook As mentioned in EXAMPLE 5.4	130-132
Paper part	3	Recall and apply Ohm's Law (i=ΔV/R). Solve problems on multiloop circuits. Analyze multiloop circuits by applying both Kirchhoff's loop rule and Kirchhoff's junction rule. Write a system of coupled equations in several unknown variables by applying both the Kirchhoff's rules. Solve the system of coupled equations for the quantities of interest using various techniques, including direct substitution. Express Kirchhoff's loop rule mathematically and apply in problem solving	As mentioned in the textbook As mentioned in FIGURE6.12	125-126 150-152
Paper part	4	Apply the relationship between the magnetic force , charge q, velocity , and the magnetic field B. Apply Newton's second law, for a charged particle in uniform circular motion due to a magnetic force, to derive an expression for the orbital radius r in terms of the magnetic field magnitude B and the particle's mass m, charge magnitude |q|, and speed v Apply the equation to calculate the orbital radius r for a charged particle in a unifrom mgnetic field or other unknown physical quantites	As mentioned in the textbook As mentioned in FIGURE 7.12	173-176
Paper part	5	Apply the equation to determine the magnetic force on a current-carring wire in a uniform magnetic ($\vec{F}_B = iL \times \vec{B}$, if orce magnitude if $F_B = iLB \sin\theta$) field or other unknown physical quantities, where is θ e angle between the direction of the current flow and the direction of the magnetic field	As mentioned in Concept Check 7.3	182-184