تم تحميل هذا الملف من موقع المناهج الإماراتية

الهيكل الوزاري الجديد منهج بريدج الخطة M-101-B المسار المتقدم

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف الحادي عشر المتقدم ⇦ فيزياء ⇦ الفصل الثالث ⇦ الملف

تاريخ إضافة الملف على موقع المناهج: 2024-05-20 11:43:57

التواصل الاجتماعي بحسب الصف الحادي عشر المتقدم

اضغط هنا للحصول على جميع روابط "الصف الحادي عشر المتقدم"

روابط مواد الصف الحادي عشر المتقدم على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

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

1	الهيكل الوزاري الجديد منهج بريدج الخطة C-101 المسار المتقدم
2	مراجعة نهائية اختيار من متعدد مع بعض الإجابات منهج انسباير
3	ملخص الوحدة التاسعة الحركة الدائرية
4	أسئلة مراجعة الوحدة التاسعة الحركة الدائرية
5	كتاب الطالب باللغة الانجليزية

Academic Year العام الدراسي	2024/2023
Term	3rd
Subject الموضوع	Physics (Bridge) الفيزياء
Grade الصف	11
Stream المسار	Advanced/المتقدم
Code	PHY M-101-B
Number Of MCQ	15
Markes of MCQ درجة الأسئلة الموضوعية	4
Number of FRQ عدد الأسئلة المقالية	4
Marks Per FRQ الدرجات للأسئلة المقالية	10
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 min.
Mode of Implementation طريقة التطبيق	Swift Assess & Paper-Based
Calculator الآلة الحاسبة	Allowed مسموحة

	Question* السؤال*	Learning Outcome/Performance Criteria** ناتج التعلم/ معايير الأداء**	المرجع في كتاب الطالب (النسخة الانجليزية) Reference(s) in the Student Book (English Version) Example/Exercise/مثال/تمرين	 Page/صفحة
MCQ - الأسئلة الموضوعية	1	Define potential energy as the energy stored in the configuration of a system of objects that exert forces on one another.	Student Book	155
	2	(1) Identify that the work done by a conservative force along a closed path is zero: $W_{(A\rightarrow B)} + W_{(B\rightarrow A)} = 0$. (2) Identify that for a particle moving between two points, the work done by a conservative force does not depend on the path taken by the particle : $W_{(A\rightarrow B),path①} = W_{(A\rightarrow B),path②}$	Student Book	158
	3	Relate the work done by the gravitational force and the gravitational potential energy for an object lifted from rest to a height h as: $\Delta U_g = -W_g$.	Example 6.1 Exercises Q. 6.32	155 183
	4	Calculate the gravitational potential energy of a particle -Earth system ($U_g = mgy$).	Exercises Q./6.31/6.32/6.33 Additional Exercises Q./6.66	183 185
	5	Calculate the work done by the gravitational force in lifting or lowering an object.	Example 6.1	155
	6	Calculate the work done by friction force for an object sliding across a horizontal surface between two points: $W_f = \vec{f}\cdot\Delta\vec{x} = -f\cdot(x-x_o) = -\mu mg\cdot(x-x_o)$	Student Book Concept Check 6.1	159
	7	Determine the change in potential energy due to spring force: $\Delta U_s = U_s(y) - U_s(y_o) = \frac{1}{2}kx^2 - \frac{1}{2}kx_o{}^2$	Student Book MCQ. 6.1/6.5/6.6/6.9	160-161 182
	8	Apply the law of conservation of mechanical energy for an isolated system (no external forces) with no dissipative forces involved, to calculate different physical quantities.	MCQ. 6.2 Conceptual Questions 6.18	182 183
	9	Define linear momentum.	Student Book	189
	10	Relate momentum to kinetic energy $K = \frac{P^2}{2m}$	Student Book Exercises/ Q./7.25	190 217
	11	Calculate the linear momentum of a particle as the product of the particle's mass and velocity $(\vec{P} = m\vec{v})$	Student Book Exercises/ Q./7.24	189 217
	12	Apply the conservation of linear momenta for an isolated system of particles to relate the initial momenta of the particles to their final momenta at any later instant	MCQ. 7.3/7.4	215
	13	Identify that collisions can be either elastic, partially inelastic or totally inelastic	MCQ. 7.11/7.12	216
	14	Solve problems related to elastic collisions in one dimension.	MCQ. 7.10	216
	15	Apply the conservation laws of momentum and total kinetic energy for elastic collisions in one dimension for the special case of equal masses and show that the two objects simply exchange their momenta and velocities where: $P_{f_{(1,x)}} = P_{i_{(2,x)}}$ / $P_{f_{(2,x)}} = P_{i_{(1,x)}}$ and $v_{f_{(1,x)}} = v_{i_{(2,x)}}$ / $v_{f_{(2,x)}} = v_{i_{(1,x)}}$	Student Book Exercises/ Q.7.51	197 219
FRQ - الأسئلة المقالية	16	(1) Relate the work done by the gravitational force and the gravitational potential energy for an object lifted from rest to a height h as: $\Delta U_g = -W_g$. (2) Calculate the change in gravitational potential energy of a mass as: $\Delta U_g = U_g(y) - U_g(y_o) = mg(y - y_o) = mgh$. (3) Determine the change in potential energy due to spring force: $\Delta U_s = U_s(y) - U_s(y_o) = \frac{1}{2}kx^2 - \frac{1}{2}kx_o{}^2$	Example 6.1 Exercises/ Q./6. 1/6.2 Exercises/ Q./6.41/6.44 Additional Exercises/ Q./6.82	155 183 184 186
	17	(1) Define mechanical energy as the sum of kinetic energy and potential energy ($E = K + U$). (2) State the law of conservation of mechanical energy: "For a mechanical process that occurs inside an isolated system and involves only conservative forces, the total mechanical energy is conserved; $\Delta E_{mech} = \Delta K + \Delta U = 0$ or $K + U = K_o + U_o$. (3) Apply the work–kinetic energy theorem to relate the work done by a force and the resulting change in kinetic energy. (4) Calculate the work done by friction force for an object sliding across a horizontal surface between two points: $W_f = \vec{f}\cdot\Delta\vec{x} = -f\cdot(x-x_o) = -\mu mg\cdot(x-x_o)$	Exercises/ Q./6.45/6.47	184
	18	(1) Calculate the change in momentum (due to change in velocity) as the difference between the final and initial momenta.$(\Delta\vec{P} = \vec{P}_f - \vec{P}_i) = m\vec{v}_f - m\vec{v}_i = m(\vec{v}_f - \vec{v}_i)$ (2) Apply the relationship between impulse, change in momentum, average force, and the time interval over which the impulse acts on the object to calculate unknown physical quantities.	Example 7.1	191
	19	(1) Relate momentum to kinetic energy. (2) Combine the equations from momentum and kinetic energy conservation for an elastic collision to obtain expressions for final velocities: $P_{f_{(1,x)}} = \left(\frac{m_1 - m_2}{m_1 + m_2}\right)\times P_{i_{(1,x)}} + \left(\frac{2m_1}{m_1 + m_2}\right)\times P_{i_{(2,x)}}$ / $P_{f_{(2,x)}} = \left(\frac{m_2 - m_1}{m_1 + m_2}\right)\times P_{i_{(2,x)}} + \left(\frac{2m_2}{m_1 + m_2}\right)\times P_{i_{(1,x)}}$	MCQ. 7.10 Exercises/ Q./7.24/7.25 Exercises/ Q.7.51	216 217 219

* Questions might appear in a different order in the actual exam, or on the exam paper./قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، أو على ورقة الامتحان.

** As it appears in the textbook, LMS, and (Main_IP)./كما وردت في كتاب الطالب وLMS والخطة الفصلية.