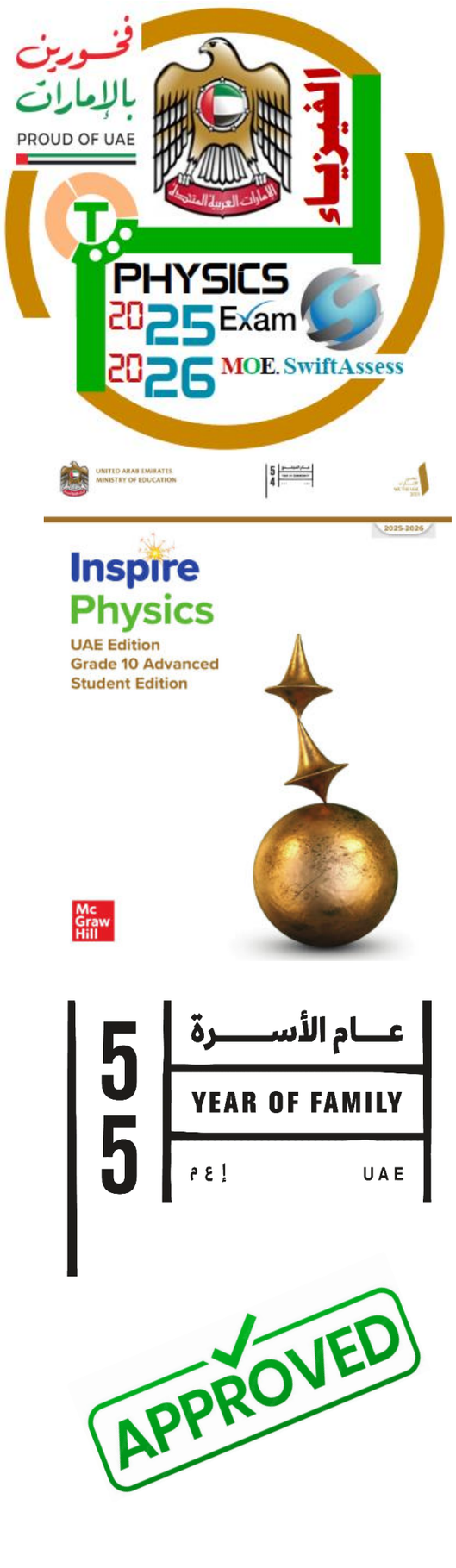
Ministry of Education. UAE
Curriculum and Assessment Sector.
Testing and Assessment Dep.
Centralized Exams.
End of Term 3 Exam Coverage

Academic Year العام الدراسي	2K25/2K26
Term/الفصل	3
Subject الموضوع	PHYSICS (INSPIRE)
Grade الصف	10
Stream. المسار	Advanced المتقدم
Number Of MCQ عدد الأسئلة الموضوعية	25
Markes of MCQ درجة الأسئلة الموضوعية	4
Type of All Questions نوع كافة الأسئلة	MCQ الأسئلة الموضوعية
Maximum Overall Grade. الدرجة القصوى الممكنة	100
Exam Duration مدة الامتحان	120 min
Mode of implementation. طريقة التطبيق	Swift Assess.
Calculator الآلة الحاسبة	Allowed مسموحة



Type / النوع	Question* / السؤال*		ناتج التعلم/ معايير الأداء** Learning Outcome/Performance Criteria**	المرجع في كتاب الطالب (النسخة الانجليزية) Reference in the Student Book (English Version) Example/Exercise مثال/تمرين.	Page. صفحة.
MCQ – [100%] الأسئلة الموضوعية		1	Describe refraction of light (or a wave) as it crosses the boundary between two different mediums and represent that in a ray diagram.	Student Book Figures (18,19)	90 90,91
		2	Identify that during refraction, the wavelength and speed of light (or a wave) change but frequency remains the same.	Student Book	92~93
		3	State and apply Snell's law of refraction.	Student Book Example (4) Practice Prob. (30,32,33)	91~93 92 92
		4	Calculate the refractive index of a medium using a suitable mathematical representation ($n=\frac{c}{v}$).	Student Book Check Your Prog. (38)	93 96
		5	Define the critical angle as the angle of incidence at which the refracted light ray lies along the boundary of the two mediums.	Student Book Figures (21)	94 94
		6	Apply the concepts of refraction, critical angle, and total internal reflection to solve numerical problems.	Student Book Check Your Prog. (36,37,39,40,41)	92~94 96
		7	Identify the principal axis, the focal points, and the focal length of a convex or a concave lens.	Student Book Figures (28), (31)	98~99 98,99
		8	Draw a ray diagram to find the image of an object located at different distances from a convex lens and determine the location and properties of the formed image.	Student Book Figures (28,29,30) Practice Prob. (47)	98~99 98~99 101
		9	Describe how a convex lens acts as a magnifier.	Student Book	99
		10	Apply the thin lens equation to calculate the image distance, the object distance, or the focal length of a convex or a concave lens using appropriate algebraic signs for focal length and corresponding distances.	Student Book Example (5) Practice Prob. (43,44,45,46) Check Your Prog. (51,55,56)	100 101 101 106
		11	• Define coherent and incoherent light. • Explain how coherent light is generated by passing monochromatic light through slits.	Student Book	112~113
		12	Explain how bright and dark interference fringes are created in a double-slit interference investigation with monochromatic light.	Student Book Figures (5)	113~114 114
		13	Apply the relation ($\lambda=xd/L$) to calculate the wavelength or to find an unknown distance in a double-slit investigation given the other values.	Student Book	115
		14	Explain that constructive interference occurs at locations xm on either side of the central bright band such that $m\lambda=x_m d/L$,where m= 0, 1, 2...	Student Book	115
		15	• Apply the relation ($\lambda=xd/L$) to calculate the wavelength or to find an unknown distance in a double-slit investigation given the other values. • Solve problems on interference of light.	Example (1) Practice Prob. (1,2,3) Check Your Prog. (13)	116 116 120
		16	• Define the phenomenon of thin-film interference. • Explain the phenomenon of thin-film interference.	Student Book	117
		17	• Define diffraction as the bending of a wave as it passes the edge of a barrier. • Explain diffraction of light.	Student Book	121~122
		18	Apply the equation ($2x_1=\frac{2\lambda L}{w}$) to solve relevant problems on single-slit diffraction.	Student Book Practice Prob. (15,17,18) Check Your Prog. (28)	123 124 129
		19	Compare the bright and dark bands from Young's Double Slit investigation with the diffraction pattern from Single Slit Diffraction regarding the band spacing, light sources, width of bands, and intensity of created bands.	Student Book	121~122
		20	• Define a diffraction grating. • Define a reflection grating and give examples. • Define a grating spectroscope	Student Book	124~126
		21	Explain that constructive interference from a diffraction grating occurs at angles on either side of the central bright line given by the equation $m\lambda= dsin\theta$ where m=1,2,3..	Student Book	126
		22	• Explain how a grating spectroscope works. • Give examples on the applications of diffraction gratings like in spectroscopes used for gemstone analysis or others.	Student Book	126
		23	Define a frame of reference.	Student Book Figures (13)	148 148
		24	Calculate relative velocity using vector addition and subtraction in one dimension: $v_{a/b} + v_{b/c} = v_{a/c}$	Student Book Figures (13) Practice Prob. (25, 27)	148~149 148 152
		25	Calculate relative velocity in two dimensions using vector addition and subtraction graphically and arithmetically.	Student Book Example (4) Practice Prob. (28, 29) Check Your Prog. (33,35)	150~151 **151** **152**

* Questions might appear in a different order in the actual exam. / قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي

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