

Academic Year	2024/2025
العام الدراسي	
Term	1
الفصل	
Subject	Biology- Inspire - C
المادة	بيولوجي-الانسبير- C
Grade	12
الصف	
Stream	Advanced
المسار	المتقدم
Number of MCQ عدد الأسئلة الموضوعية	20
Marks of MCQ درجة الأسئلة الموضوعية	100
Type of All Questions نوع كافة الأسئلة	الأسئلة الموضوعية / MCQ
Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - امتحان	120 minutes
Mode of Implementation طريقة التطبيق	SwiftAssess
Calculator	Allowed
الآلة الحاسبة	مسموحة

Question*	Learning Outcome/Performance Criteria**	Lesson	Reference(s) in the Student Book (Aldiwan Version)	
			المرجع في كتاب الطالب (نسخة الديوان)	
السؤال*	نتائج التعلم / معايير الأداء**	الدرس	Example/Exercise/Figure	Page
			مثال / تمرين / شكل	الصفحة
الأسئلة الموضوعية - MCQ	1	BIO.3.3.02.012 Explain the concepts of genotype, phenotype, dominance, incomplete dominance, codominance, recessiveness, and sex linkage according to Mendelian laws of inheritance	U3M10L1	page 9, 10
	2	BIO.3.3.02.011 Explain the concepts of genotype, phenotype, dominance, incomplete dominance, codominance, recessiveness, and sex linkage according to Mendelian laws of inheritance	U3M10L1	page 8
	3	BIO. 3.1.03.038 Explain the phases of meiosis in terms of cell division, the movement of chromosomes, and crossing over of genetic material.	U3M10L2	page 12
	4	BIO. 3.1.03.036 Investigate that variations of inherited traits between parent and offspring arise from genetic differences that result either from the subset of chromosomes and therefore from inherited genes or rarely from mutations and show the variations of inherited traits in a pedigree	U3M10L2	Figure 11 page 13
	5	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding	U3M10L3	page 17
	6	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding	U3M10L3	page 15
	7	BIO.3.3.01.036 Investigate that variations of inherited traits between parent and offspring arise from genetic differences that result either from the subset of chromosomes and therefore from inherited genes or rarely from mutations and show the variations of inherited traits in a pedigree	U3M10L4	Table 2, 3 page 20, 22, 23
	8	BIO.3.3.02.011 Explain the concepts of genotype, phenotype, dominance, incomplete dominance, codominance, recessiveness, and sex linkage according to Mendelian laws of inheritance	U3M10L4	page 20, 19
	9	BIO.3.3.02.012 Use the Punnett square method to solve basic genetics problems involving monohybrid crosses, incomplete dominance, codominance, dihybrid crosses, and sex-linked genes	U3M10L5	page 27
	10	BIO.3.3.02.012 Use the Punnett square method to solve basic genetics problems involving monohybrid crosses, incomplete dominance, codominance, dihybrid crosses, and sex-linked genes BIO 3.3.02.020 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population	U3M10L5	Figure 18 page 25
	11	BIO.3.3.02.012 Use the Punnett square method to solve basic genetics problems involving monohybrid crosses, incomplete dominance, codominance, dihybrid crosses, and sex-linked genes BIO.3.3.02.011 Explain the concepts of genotype, phenotype, dominance, incomplete dominance, codominance, recessiveness, and sex linkage according to Mendelian laws of inheritance	U3M10L5	page 27, 32
	12	BIO.3.3.01.023 Identify examples, using information collected from printed and electronic resources, of the qualities that depend on the amount of protein produced, which in turn depends on the number of copies of a specific version of the gene, and predict to explain how the imbalance of the lack or presence of one copy or two copies of a specific version of the gene may affect the expression of a particular trait.	U3M10L5	Figure 21 page 28
	13	BIO.3.3.01.012 Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA	U3M11L1	Figure 1 page 40
	14	BIO.3.3.01.012 Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA	U3M11L1	Figure 3 Table 1 page 42, 43
	15	BIO.3.3.01.012 Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA	U3M11L1	page 45, 47
	16	BIO.3.3.01.016 Explain the current model of DNA replication and describe the different repair mechanisms that can correct mistakes in DNA sequencing including the mechanisms of biotechnology and bioinformatics.	U3M11L2	Figure 10 page 50
	17	BIO.3.3.01.016 Explain the current model of DNA replication and describe the different repair mechanisms that can correct mistakes in DNA sequencing including the mechanisms of biotechnology and bioinformatics.	U3M11L2	Figure 10 page 50
	18	BIO.3.3.01.016 Explain the current model of DNA replication and describe the different repair mechanisms that can correct mistakes in DNA sequencing including the mechanisms of biotechnology and bioinformatics.	U3M11L2	page 50, 51
	19	BIO.3.3.01.014 Investigate and analyze the cell components involved in the process of protein synthesis, using appropriate laboratory equipment and techniques, or a computer simulation.	U3M11L3	Figure 15 page 58
	20	BIO.3.3.01.009 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.	U3M11L3	Figure 12 page 53
*	Questions might appear in a different order in the actual exam, or on the exam paper in the case of G3 and G4.			
*	قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، أو على ورقة الامتحان في حالة الصفين G3 و G4.			
**	As it appears in the textbook, LMS, and (Main_IP).			
**	كما وردت في كتاب الطالب وLMS والخطة الفصلية .			