UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

End of Term 1 Exam Coverage	هيكل اختبار نهاية الفصل الدراسي الأول
Grade 12 Advanced - Biology - C	**الصف الثاني عشر - متقدم - الأحياء**
Academic Year 2026-2027	العام الدراسي 2027-2026
Inspire	انسباير

الدرجة القصوى الممكنة Maximum overall grade	درجة السؤال Marks per question	عدد الأسئلة Number of questions
100	**3-4**	**30**

الآلة الحاسبة Calculator	طريقة التطبيق Mode of implementation	مدة الاختبار Exam duration
يُسمح باستخدام الآلة الحاسبة العلمية **The use of a scientific calculator is allowed**	**إلكتروني** **Electronic**	**120 دقيقة** **120 minutes**

⚠ Questions might appear in a different order in the actual exam.
Book used is "Inspire Biology UAE Edition G11-12 Advanced Student Edition, Volume 2".
Refer to the page numbers displayed at the top of each page.

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page
اسئله اختيار من متعدد Multiple Choice Questions	Q1	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	Information from text Figure 2	5
	Q2	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	Information from text Figure 3	7

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page
أسئلة اختيار من متعدد Multiple Choice Questions	Q3	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	Figure 4	8
	Q4	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.	Figure 5	9
	Q5	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.	Figure 7	10
	Q6	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.	Figure 8	10
	Q7	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.	Math Connection	12
	Q8	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.	Gene Linkage	12
	Q9	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.	Get It	13
	Q10	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.	Figure 11	13

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page
أسئلة اختيار من متعدد Multiple Choice Questions	Q11	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.	Figure 12	14
	Q12	BIO.3.2.04.010: Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding.	Figure 13	15
	Q13	BIO.3.2.04.010: Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding.	Get It	16
	Q14	BIO.3.2.04.010: Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding.	Figure 14	17
	Q15	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.	Table 1	18
	Q16	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.	Figure 15	19
	Q17	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.	Figure 17	20
	Q18	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.	Table 2	22

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page
أسئلة اختيار من متعدد Multiple Choice Questions	Q19	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.	Figure 18	25
	Q20	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.	Figure 19	26
	Q21	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.	Figure 20	27
	Q22	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-linke genes..	Information from text Figure 23	30
	Q23	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-linke genes..	Information from text Figure 25	31
	Q24	BIO.3.3.01.012: Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA.	Information from text Figure 2	41
	Q25	BIO.3.3.01.012: Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA.	Information from text Figure 3	42
	Q26	BIO.3.3.01.012: Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA.	Information from text Figure 4	44
	Q27	BIO.3.3.01.012: Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA.	Information from text Figure 5	44
	Q28	BIO.3.3.01.012: Analyze a simulated strand of DNA to determine the genetic code and base pairing of DNA.	Information from text Figure 7	46

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page
أسئلة اختيار من متعدد Multiple Choice Questions	Q29	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.	Demonstrate understanding question 2	47
	Q30	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.	Demonstrate understaning question 3	47