

Academic Year	2023/2024
المعام الدراسي	
Term	1
الفصل	
Subject	Chemistry / Inspire
المادة	الكيمياء / إلهام
Grade	10
الصف	
Stream	Advanced
المسار	المتقدم
Number of MCQ	20
عدد الأسئلة الموضوعية	
Marks of MCQ	5
درجة الأسئلة الموضوعية	
Number of FRQ	0
عدد الأسئلة المقالية	
Marks per FRQ	0
الدرجات الأسئلة المقالية	
Type of All Questions	MCQ/ الموضوعية
نوع كافة الأسئلة	one question Fill From List
Maximum Overall Grade	100
الدرجة القصوى الممكنة	
Exam Duration	120 minutes
مدة الامتحان	
Mode of Implementation	SwiftAssess
طريقة التطبيق	
Calculator	Allowed
الآلة الحاسبة	مسموحة

Question*	Learning Outcome/Performance Criteria**	Reference(s) in the Student Book (English Version& Arabic Version)	
		المراجع في كتاب الطالب (النسخة الإنجليزية والنسخة العربية)	Page
السؤال*	نتائج التعلم / معايير الأداء**	Example/Exercice	الصفحة
1	CHM.5.1.01.001 Compare between Bohr model and the quantum mechanics model of atom and illustrate the effect of the dual nature 'wave-particle' of De Broglie and Heisenberg's uncertainty principle on the current view of electrons in atom while determining the relationship between the energy levels of the hydrogen atom and its sublevels and atomic orbits	Textbook	18 , 19
2	CHM.5.1.01.001.05 Describe the relationship between the energy levels, energy sublevels of hydrogen	Textbook	21 ,22 , 23 ,24 , 25
3	CHM.5.1.01.001 Write the electronic configuration of a variety of elements of the periodic table and ions, employing the Pauli exclusion principle, the Hund rule, and the Aufbau principle for upward building	Textbook- table 3	24 ,25 , 26
4	CHM.5.1.01.003.05 Write the electron configuration, orbital diagram, and noble gas notation of different elements	Textbook	28
5	CHM.5.1.01.004.01 Illustrate the development of the periodic table of Mendeleev to the modern periodic table	Textbook - table 2	37 , 38 , 39
6	CHM.5.1.01.007 Identify the location of Lanthanides and Actinide in the periodic table while illustrating some of their uses	Textbook	40 , 42
7	CHM.5.1.01.010.03 Describe the general properties of alkaline earth metals and their uses	Textbook	44
8	CHM.5.1.01.008.02 Use the electron configuration notation, orbital notation, and noble gas notation of an element (2 - 36) to identify the location of an element in the periodic table (period, group and block)	Textbook - practice problems	47 , 49
9	CHM.5.1.01.009 Predict the periodic properties of elements (e.g. atomic radius, ionization energy, electron affinity and electronegativity) in the period and group in the periodic table.	Textbook + example 2 + Applications	50 , 51 ,52
10	CHM.5.1.01.008.14 Describe the trend of ionic radii across a period and down a group of the periodic table	Textbook - figures 15 , 16	53 , 54
11	CHM.5.1.02.022.03 Describe how ions (cations and anions) form to fulfill the octet rule	Textbook	67
12	CHM.5.1.02.022.05 Write the electron configuration notation, noble gas notation and Lewis structure of different anions and cations	Textbook	66
13	CHM.5.1.02.022.05 Write the electron configuration notation, noble gas notation and Lewis structure of different anions and cations	Textbook	67
14	CHM.5.1.02.022.07 Use the Lewis diagram (electron-dot structure) to explain how elements from the periodic groups combine to form an ionic compound	Textbook + table 4 + Applications	69 , 70
15	CHM.5.1.02.022.08 Explain the physical properties of ionic compounds as melting point and boiling point, conductivity when solid, molten or aqueous, and its solubility in water	Textbook	71 ,72 ,73 ,74
16	CHM.5.1.02.022.15 Describe the relationship between lattice energy and the charge of ions CHM.5.1.02.023.16 Describe the relationship between lattice energy and the ionic size of ions	Textbook - table 6	74 , 75
17	CHM.5.1.01.013.01 Write the chemical name of an ionic compound containing monatomic and polyatomic ions (including oxyanions) CHM.5.1.01.013.02 Write the chemical formula (using the stock method) of an ionic compound containing monatomic and polyatomic ions	Textbook + examples 1 , 2 ,3 + Applications	77 ,78 ,79 ,80
18	CHM.5.1.02.001.07 Differentiate between sigma and pi bonds	Textbook+ figures 7 , 8 , 9	97 , 98
19	CHM.5.1.01.014.02 Name a binary molecular compound based on its molecular formula (up to deca-) CHM.5.4.01.006.01 Use the method of initial rates to determine the order of a reaction with respect to each reactant	Textbook - table 2 - Example problem2 - Practice problems	101 , 102
20	CHM.5.1.02.002.01 Draw Lewis structures for a number of covalent compounds with single and multiple bonds	Textbook + problem - solving strategy +examples 3 , 4 + Applications	108 , 109 , 110
* Questions might appear in a different order in the actual exam			
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** As it appears in the textbook(UAE Edition Grade 10 Aavance Student Edition - as in DIWAN) , LM			
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