

Academic Year السنة الدراسية	2023/2024
Term الفصل	1
Subject المادة	Chemistry /INSPIRE الكيمياء / إنسبير
Grade الصف	11
<b>PLAN - C</b>	
Stream المسار	Advanced المتقدم
Number of MCQ عدد الأسئلة الموضوعية	20
Marks of MCQ درجة الأسئلة الموضوعية	5
Number of FRQ عدد الأسئلة المقالية	0
Marks per FRQ الدرجات للأسئلة المقالية	0
Type of All Questions نوع كافة الأسئلة	MCQ/ الأسئلة الموضوعية
Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - امتحان مدة الامتحان	120 minutes
Mode of Implementation طريقة التطبيق	SwiftAssess
Calculator الآلة الحاسبة	Allowed مسموحة

Question* السؤال*	Learning Outcome/Performance Criteria** نتائج التعلم / معايير الأداء**	Reference(s) in the Student Book ( English Version) المرجع في كتاب الطالب (النسخة الإنجليزية)	
		Example/Exercise مثال/تمرين	Page الصفحة
1	CHM.5.5.01.001.07 Perform interconversion between units of temperature and heat	Example Problem1 + Practice problems	6, 7
2	CHM.5.5.01.001.09 Describe how the same amount of heat affects the temperature of different objects of the same mass	Text book	7,8,9
3	CHM.5.5.01.002.03 Calculate the specific heat capacity of a sample given its mass and temperature change	Example Problem3 + Practice problems	13,14,15
4	CHM.5.5.01.004.04 Compare and contrast potential energy diagrams of exothermic and endothermic reactions in terms of general shape, enthalpy of reactants and products, activation energy of forward and backward reactions, and enthalpy of reaction and its sign	Text book	15,16,17,18
5	CHM.5.5.01.006.09 Perform calculations using enthalpy of combustion	Example Problem4 + Practice problems	22,23
6	CHM.5.5.01.006.10 Write thermochemical equation for the changes of state (vaporization, fusion, condensation and solidification)	Text book	19,20,21
7	CHM.5.5.02.002.01 Calculate, using Hess's law, the $\Delta H$ of a reaction	Example Problem5+ Practice problems	24,25,26,27
8	CHM.5.5.02.006.04 Calculate enthalpy of reaction ( $\Delta H_{rxn}$ ) using standard enthalpies of formation of products and reactants while using the sign of $\Delta H$ for determining if the reaction is exothermic or endothermic.	Example Problem6+ Practice problems	27,28,29,30,31,32
9	CHM.5.5.02.008.04 Predict the change in the entropy of a system, $[\Delta S]_{System}$ (According to a set of rules)	Text book+ Practice problems	35,36,37
10	CHM.5.5.02.009.06 Calculate standard Gibbs' free energy change using the table of standard values	Example Problem7+ Practice problems	38,39,40,41
11	CHM.5.4.01.020.01 Calculate the average reaction rate using the rate of consumption of reactants or the rate of production of products	Example Problem1+ Practice problems	50,51
12	CHM.5.4.01.022.03 Describe the relationship between activation energy and rate of the reaction	Text book	52,53,54
13	CHM.5.4.01.001.04 Describe the relationship between reactant concentration and reaction rate	Text book	65,66,67
14	CHM.5.4.01.006.02 Use the method of initial rates to write rate law of reaction	Text book+ Practice problems	67,68
15	CHM.5.4.02.001.05 Describe chemical equilibrium using reactant and product concentration-time graph or particulate diagrams	Text book	80,81,82
16	CHM.5.4.02.003.02 Explain the effect of changing the concentration (Adding reactants or removing products or adding products) on an equilibrium system CHM.5.4.02.003.04 Explain the effect of changing temperature on an equilibrium system	Text book	95,97,98
17	CHM.5.4.02.003.03 Explain the effect of changing the volume and pressure on an equilibrium system	Text book	96
18	CHM.5.4.02.006.01 Calculate the value of equilibrium constant given the concentration data at a specific equilibrium position	Example Problem4+ Practice problems	99,100
19	CHM.5.4.02.008.01 Calculate the molar solubility (concentration) of a sparingly soluble ionic compound using the solubility product constant, $K_{sp}$	Example Problems 8&+ Practice problems	101,102,103,104,105
20	CHM.5.4.02.008.04 Identify whether a precipitate will form or not (by calculation and using relation between $K_{sp}$ and $Q_{sp}$ )	Example Problem7+ Practice problems	105,106,107
* 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 ( UAE Edition Grade 12 Advance Student Edition), LMS, and (Main_IP).			
** كما وردت في كتاب الطالب ( كتاب الطالب المتقدم طبعة دولة الإمارات العربية المتحدة ) و LMS والخطة الفصلية .			