



Daffodil International University
Department of Electrical and Electronic Engineering
Faculty of Engineering
Mid-Term Examination, Fall – 2025

Course Code: 0531-111

Course Title: Chemistry

Section: A, B, C, D, E, F, G, H

Level-Term: L1-T1

Teacher's Initial: AAA, SRA

Full Marks: 25

Exam Date: October 13, 2025

Time: 1.5 Hours

*[Notes: Answer all the following questions
CO's represent one of the learning outcome of the course
Figures on the right hand side indicate marks allocated for the questions]*

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| Q1. Define Isotope & Isotones with examples. Explain the Bohr's atomic model. | CO-1
C(2) | [1+4] |
| Q2. Summarize the confusion regarding the position of hydrogen in the periodic table.
Interpret the reason of Beryllium having higher ionization energy than Boron. | CO-1
C(2) | [2+3] |
| Q3. Demonstrate the formation steps of Ionic compound.
Construct a table with the differences of ionic compound and covalent compound. | CO-2
C(3) | [3+2] |
| Q4. Demonstrate the limitations of Mendeleev's classification.
Solve the problem by comparing the frequencies of H_{α} & H_{β} lines of atomic spectrum of hydrogen atom for Balmer series. | CO-2
C(3) | [2+3] |
| Q5. Calculate the quantum numbers for 19 th & 23 rd electrons of Cr.
Distinguish between the two isomeric structures of nitrophenol in terms of H-bonds. | CO-2
C(3) | [2+3] |