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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]

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_γ & H_δ lines of atomic spectrum of hydrogen atom for Balmer series.	CO-2 C(3)	[2+3]
Q5.	**Calculate** the quantum numbers for 19th & 23rd electrons of Cr. **Distinguish** between the two isomeric structures of nitrophenol in terms of H-bonds.	CO-2 C(3)	[2+3]