Criteria	Excellent	Good	Fair	Unacceptable
Grammar, spelling and clarity	[1 pt] No obvious spelling or grammatical errors	[0.5 pt] Spelling errors exist but are not distracting; no grammatical errors	[0 pt] Obvious spelling errors and grammatical errors	[0 pt] Spelling and grammatical errors are distracting
Overall appearance	[1 pt] Title page is properly formatted; figures are informative and appropriate	[0.5 pt] Title page not properly formatted; figures are included without proper notation	[0.5 pt] Title page is not properly formatted; figures are limited or not shown	[0 pt] No title page; no figures
(Q#1: a-e) 1,3-Pentadiene & 1,4-Pentadiene Calculations	[5 pts] Calculations for all three structures are accurate and tabulated; stability arguments are accurate	[4 pts] Calculations for all three structures are accurate; stability arguments are reasonable	[2 pts] Calculations for all or some structures are inaccurate; stability arguments are invalid and offer no evidence for support	[1 pt] Calculations for structures are missing; stability arguments are inaccurate
(Q#2: a-c) Conformational Analysis of 1,3-Butadiene	[5 pts] Calculations of the energy profile are complete; energy minima and maxima are explained with data-supported MO arguments	[4 pts] Calculations of the energy profile are incomplete &/or energy minima and maxima are explained incompletely (lack data-driven support)	[2 pts] Calculations of the energy profile are incomplete; energy minima and maxima are incorrectly explained	[1 pt] No evidence for calculations of the energy profile; energy minima and maxima are not explained
(Q#3: a-c) Free Radical Bromination of 1-Pentene	[5 pts] Calculations for all three structures are accurate and tabulated; stability arguments are accurate	[4 pts] Calculations for all three structures are accurate; stability arguments are reasonable	[2 pts] Calculations for all or some structures are inaccurate; stability arguments are invalid and offer no evidence for support	[1 pt] Calculations for structures are missing; stability arguments are inaccurate
(Q#4) Allyl Cation derived from 3-Bromo-1-pentene & 4-Bromo-1-pentene	[5 pts] Calculations are complete; figures are appropriate; explanations include appropriate theoretical arguments	[4 pts] Calculations are complete; no figures are given; explanations are inaccurate	[2 pts] Calculations are incomplete; figures are not provided; explanations are inaccurate	[1 pt] Calculations are incomplete; no figures are provided; no explanations are provided
(Q#5: a-b) Aromatic Compounds	[3 pts] Calculations of the aromatic compounds are complete	[2 pts] Calculations of the aromatic compounds are incomplete	[1 pt] Calculations are inaccurate and incomplete	[0 pts] No answer
(Q#6) Bicyclic Compounds	[5 pts] Calculations are complete; data is tabulated; appropriate theoretical arguments are cited	[4 pts] Calculations are complete; data is not tabulated; appropriate theoretical arguments are provided	[2 pts] Calculations are incomplete &/or data is not tabulated; argument is not data-supported	[1 pt] Calculations are incomplete & data is no tabulated; no argument is provided