

CH203 'Physical Chemistry' - Rubric for Assessment of Laboratory Experiment and Report

RSD Facets	Marking Element	Marginal (1)	Acceptable (2)	Exceptional (3)
Facet A Embark and Clarify	Aim, Hypothesis	No clear aim.	Aim is somewhat clear and moderately aligned to the experiment.	Aim is clear and is well aligned to the experiment.
	Carrying out experiments in the class	Not sure of what to do and why experiment is done (Unconfident.)	Confident in doing the experiment but does not have an idea of an expected outcome(s)	Confident in doing the experiment and articulates a realistic expected outcome of the experiment.
Facet B Find & Generate	Procedure /methods	In the report experimental procedure is incomplete. Writes "As in lab handout".	In the report, experimental section contains the procedure which is presented in a mixture of present and past tense. Difficult to follow.	In the report, experimental section contains the procedure presented in past tense. Easy to follow and understand.
	Carrying out experiments in the class	Incompetent with the use of scientific instruments, techniques and skills to carry out experiment.	Partially competent with the use of laboratory instruments, techniques and skills to carry out experiment.	Proficient in the use of scientific instruments, techniques and skills in carrying out experiments.
Facet C Evaluate and Reflect	Use of credible references or sources.	No sources or references used to verify the recorded and calculated data.	Non-credible references used to verify recorded and calculated data.	Credible references used to verify the recorded and calculated data.
	Calculation of errors	No error calculation.	Errors are calculated for some data.	Provides realistic range of potential errors in data.
Facet D; Organise and Manage	Experimental results presentation	Log book not used. Experimental results incomplete, improper use of units. No tables.	No proper log book used. Experimental results correct, not tabulated no proper use units	Proper log book for recording experimental results and doing calculations. Data tabulated with proper use of units.
	Format of report	Is not following the general outline of Title, Introduction (including aim), Experimental, Results, Discussion, Conclusion and References. Work is	Follows the general outline of Title, Introduction (including aim), Experimental, Results, Discussion, Conclusion and References. Information in the result section is presented in a logical manner, which is easily	Follows the general outline of Title, Introduction (including aim), Experimental, Results, Discussion, Conclusion and References.. Information is presented in a logical way, which is easy to follow.

		hard to follow as there is very little continuity.	followed.	
Facet E; Analyse and Synthesise	Calculations (problem solving)	Only the answer is written without the formula. No further explanation is given.	Formula is written and calculation is shown without explanation as to why the particular formula was used.	Chooses the correct formula. Explains each term in the formula and is defined with units. Explains which term(s) is achievable through experiments. Obtains the answer using the formula
	Content & Knowledge	Unsure of content. Only basic concepts are demonstrated and interpreted.	At ease with content and able to elaborate and explain to some degree its applications to the society	Demonstrate full knowledge of the subject with explanations and elaborations and its applications to the society.
	Conclusion	Conclusion is not linked well to aim.	Conclusion is moderately linked to the aim.	Conclusion is well linked to the aim.
Facet F; Communicate and Apply Ethically	Use of ICT (where applicable to write laboratory reports)	Report handwritten. Graphs are drawn using graph paper. Unformatted text. Improper use of English language.	Report is written in a mixture of handwritten and use of ICT tools. Graphs are drawn using computer software however labelling and formulas are handwritten. The text is not formatted. Some grammatical errors. References used but not valid.	ICT tools used to write the report. Graphs are drawn using computer software and labelled correctly. Text formatted, chemical formulas are correctly typed. Proper use of English language. Valid references used for citation.
	Mark allocation	5-6.5	6.6-7.9	8-10

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