

Name of Tutee: \_\_\_\_\_

## 7.1 Laboratory Automation – Knowledge Assessment

- Complete the following tasks. Collect the evidence in the 7.1 area of your portfolio

Knowledge	Task – Reflective Notes – no more than 2 sides for each, along with evidence collected as described – include all in your portfolio	Assessed for Knowledge Initials/Date
<b>Understanding Automation and Mechanisation</b>	<b>Use Ref 1:</b> Note the differences between mechanisation and automation. Which terms have stood the test of time and are still in use today?	
<b>Roles of CFA</b>	<b>Use Ref 2:</b> Critically examine the R&D proposal and give you views on the CFA option as a way forward. Give alternative mechanisation ideas to help with increasing TPMT workload growth.	
<b>Discrete Analysis</b>	<b>Use Ref 3:</b> Consider the evaluation of the Dacos analyser to look at fundamental issues of assessing an analyser. Give a view on why the Dacos analyser was not a commercial success in the form described in the paper.	
<b>Issues With Phlebotomy and other pre-analytical factors</b>	<b>Use Ref 5:</b> Summarise the key issues raised by the study of phlebotomy techniques in the City Emergency Department. Give your own views on the ways issues could be overcome in a sustainable way.	
<b>Historical Perspective</b>	<b>Use Ref 4:</b> What tests did they do in the Sandwell Laboratory on Christmas Eve 1956 (the day after I was born!). Discuss any issues with the way the results were written down. How do you think they measured these parameters?	
<b>Current Test Knowledge</b>	Obtain kit inserts for the following for your portfolio and write brief notes to explain the basis of the tests: <ul style="list-style-type: none"> <li>• A simple photometric test</li> <li>• A photometric test which uses rate determinations to measure enzyme activity</li> <li>• A photometric test which uses rate determinations to measure the amount of substance in a sample.</li> <li>• An immunoassay method – explain the reaction principle and the way the signal is measured.</li> <li>• An ISE method – write brief notes about the way the ion you have chosen is measured.</li> </ul>	
<b>Quality Control and EQA</b>	<ul style="list-style-type: none"> <li>• Take one test and review the QC and EQA. Briefly describe the EQA system so that someone non-technical could understand what the numbers mean!</li> </ul>	