ATBIO TASK 1 VALIDATION /35

NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Explain (using a labelled diagram if necessary) how restriction enzymes would produce DNA sections for Electrophoresis. Include examples of both types of ‘ends’. (4)
2. Explain the property DNA that enables it to be used in Gel Electrophoresis. (2)
3. What are microsatellites/STR’s and why are they so useful in analysis of samples. (3)
4. What is a molecular marker and why is it used? (3)
5. Define PCR and explain in detail the steps used to produce a large sample from a tiny one of DNA. (10)
6. Suggest three situations where PCR would be needed before a profile could be done. (3)
7. Biotechnological processes are now largely automated to save time. Explain how the samples can be labelled in order for the machine to read the barcode. (2)
8. What is an advantage of this technological wheat analysis over the traditional selection methods? (2)
9. Give two examples from the animal world where profiling could be useful. (2)

Practical mark /4

Your practical write up will have 25% weighting with 75% for your validation.