BCS Essentials Certificate in Artificial Intelligence
Specimen Paper Answer Key

Question	Answer	Explanation / Rationale	Syllabus Sections
1	B	Taken from the standard textbook by Tom Mtichell. Public recognition can be seen on sites such as Wikipedia. The other answers are key figures in AI and Machine Learning.	1
2	D	A human can identify a horse in a foggy field with only a few examples. Machine learning on the other hand requires an order of magnitude more examples to learn the same thing. The other answers are actions or subjective actions.	1
3	A	Playing is what children do for fun and often involves learning. Discovery, Trial and Error and Experimentation are what humans do to understand a problem and learn from. In machine learning, a Heuristic can be used to guide an algorithm to the right answer or learn quicker.	1
4	A	From a general description of an ANN, the candidate should recall the definitions of unsupervised, structured and unstructured data and know that the distractors are not examples of machine learning.	2
5	B	The candidate can recall that Machine Learning models can be simple mathematical representations of the human body.	2
6	A	The candidate can give an example of AI; the other answers are fundamental subjects on which machine learning is based.	2
7	A	The candidate can remember that OCR is now about identifying hand written and type text. The other answers are plausible examples.	3
8	B	The candidate can recall the definition of NLP in the context of AI. NLP can be used in other fields, so the candidate needs to understand this.	3
9	C	The candidate can remember that reinforcement learning is used in swarm intelligence and optimisation. This is an important part of why machine learning has developed into a large industry. Deep Mind's success in beating the World Go champion is a typical example often quoted. The other answers are plausible but not relevant.	3
10	A	The candidate can recall that the Fourth industrial revolution has embraced AI.	4