

Sample exam CS62S

Question 1.

- a) **(3 points)** Verification and validation – what are the key differences between these two concepts?
- b) **(12 points)** Describe, in detail, three (3) types of common errors in a rule-based system, giving examples, of each type.

Question 2.

- a) **(3 points)** Uncertainty! How does this apply to expert systems?
- b) **(12 points)** Select one method and discuss how it is derived, giving at least one example.

Question 3.

- a) **(8 points)** Using suitable diagrams, describe the structure of expert systems.
- b) **(7 points)** Describe the forward reasoning process..

Question 4.

- a) **(10 points)** CLIPS is the best expert system tool. Explain why you agree or disagree with this statement, while making reference to the pertinent qualities of a good tool.
- b) **(5 points)** Knowledge representation is a decision that a knowledge engineer must make. What factors should affect his/her decision?