



KENYATTA UNIVERSITY

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING (DSVOL)

EXAMINATION FOR THE MASTER OF KNOWLEDGE ENGINEERING

ISC 855: KNOWLEDGE ENGINEERING

1ST TRIMESTER 2022/2023

TIME: 3 Hrs

INSTRUCTIONS:

Answer any **THREE** questions

1.
 - a) Highlight five (5) advantages that expert systems offer organizations that would otherwise have to employ human experts. (15 marks)
 - b) Explain why many people say that they will not trust a 'robo-doc' medical diagnosis expert system? 6.5 (m)
2. Explain how expert systems can be applied to support the following Library functions:
 - a) Content indexing. [4 marks]
 - b) Cataloguing and classification. [4 marks]
 - c) Collection development. [4 marks]
 - d) Reference services. [4 marks]
 - e) Library Security [4 marks]
3. Explain how the following algorithms support the process of problem solving.
 - a) Search engine algorithm. [4 marks]
 - b) Encryption algorithm. [4 marks]
 - c) Recursive algorithm [4 marks]
 - d) Divide-and-conquer algorithm. [4 marks]
 - e) Sorting algorithm [4 marks]
4. 'Every expert system has its own language, the way it understands input commands and responds with output,' based on this statement explain the following terms as applied in network system integration:
 - a) Network systems integration. [5 marks]

- b) Enterprise Application Integration. [5 marks]
 - c) Data Integration. [5 marks]
 - d) Electronic Data Interchange. [5 marks]
5. Describe the five (5) stages of an Expert System Life Cycle (20 marks)