

## EXAMINATION QUESTION PAPER



### INSTITUTE OF INFORMATICS

Program : M.Sc. in Informatics

Module : INF02512 Knowledge Management

Date: 23 December 2009

Time: 6:15-8:30pm

Examiner: K. Shaalan

### INSTRUCTIONS TO CANDIDATES

**Answer questions (1) through (5) and ONLY TWO questions from (6) to (8)**

Each part of a question carries a weight and the marks are shown at the side of the respective part. The total marks of the exam are 100.

Write as legibly as possible.

**THIS EXAMINATION WILL BE MARKED ANONYMOUSLY**

### INF02512 Knowledge Management

1) Briefly define corporate memory and how KM is related to corporate memory.  
[5 Marks]

2) How does high or increasing task uncertainty impact KM processes? Show the relationship between task uncertainty and task interdependence with respect to KM process implementation.  
[10 Marks]

3) Distinguish briefly between:

- (a) fact and rule
- (b) experience and heuristics
- (c) tacit and explicit knowledge
- (d) Knowledge-based systems and Case-based reasoning systems
- (e) Learning by experience and Learning by example

[15 Marks]

4) Explain how a repertory grid knowledge elicitation process works. What are the required characteristics of knowledge suitable for capture using a repertory grid methodology?  
[15 Marks]

5) Given the following set of rules to classify green fruits and information available to a KB system user, demonstrate how forward reasoning and backward reasoning would reach a solution?

Rule 1: If number of seeds > 1      then seedclass = multi

Rule 2: If number of seeds = 1      then seedclass = stone

Rule 3: If number of seeds < 1      then seedclass = seedless

Rule 4: If diameter > 4"      then fruitclass = vine

Rule 5: If diameter < 4"      then fruitclass = tree

Rule 6: If seedclass = multi and fruitclass = vine      then fruit = watermelon

Rule 7: If seedclass = seedless and fruitclass = tree      then fruit = grape

Rule 8: If seedclass = multi and fruitclass = tree and shape = round  
then fruit = apple

Rule 9: If seedclass = multi and fruitclass = tree and shape = oblong  
then fruit = pear

Known facts for/from user:

*"round shape, many seeds, oblong shape, diameter = 2.5".*

[15 Marks]

**Answer ONLY TWO questions from the following:**

**6)** As an IT manager for the XYZ company, you are placed in charge of the development of a new CRM (Customer Relationship Management) system to be used by your sales people when interacting with customers. You organize a development team from IT, accounting, and sales. Discuss the importance of the various KM processes and subprocesses on the design of an effective CRM system.

[20 marks]

**7)** Describe and discuss the impact of communities of practice on people. Use the KM processes and subprocesses in your discussion.

[20 Marks]

**8)** A bank wants to conduct a Knowledge Management project. The goal of this project is to develop a *consumer-lending* knowledge base to guide the junior bank officer through the decision of whether an auto loan should be approved. In the loan department, there are experienced senior loan officers who are willing to share their knowledge with others. You have been assigned the job of building a KM system for the bank. Explain in detail the steps that you should follow in this project.

[20 Marks]