



FACULTY OF SCIENCE

Academy of Computer Science and Software Engineering

MODULE: IT Aspects of Knowledge Management
CODE: IT00227 / IT28x27
CAMPUS: APK
EXAM: **July 2020**

DATE: July 2020

SESSION:

ASSESSOR

Mr JP Klut

INTERNAL MODERATOR

EXTERNAL MODERATOR

DURATION: 2 HOURS

MARKS: 100

NUMBER OF PAGES: 3, NUMBER OF QUESTIONS: 9

INSTRUCTIONS: ANSWER ALL QUESTIONS AND HAND THIS QUESTION PAPER IN AS WELL

Question 1:

Case study information: You are a knowledge management (KM) consultant and get a request from a client to help address the problem of the effect that high staff turnover has on the loss of knowledge in the organization. It is however, from the very start, evident that people are not sure what KM is. To clear this up you prepare a definition of KM.

Define knowledge management. (2)

Question 2:

Case study information: As you get familiar with the organization, you realize that there is a lack of engagement between formal and informal learning activities, which is one of the main reasons why the organization is losing its knowledge as people leave. You decide to design and develop an adaptation eLearning model using AI and machine learning for restricted social networks.

L.I.M.E. is a model recently published (L.I.M.E. A recommendation model for informal and formal learning, engaged, Daniel Burgos, UNIR) that can help solve the above problem. Describe the L.I.M.E. model and its 4 vectors (4)

Question 3:

Case study information: After a 2 week assessment, you realize that this organization seem to be doing some things correctly, but it is not evident why they are not able to capture knowledge in their organization. You decide to create a survey to determine the organization's KM maturity. To create this survey, you decide to use a KM framework that encompasses all elements of KM in an Enterprise organization.

Using a diagram, show what this framework looks like. (30)

Question 4:

Case study information: Having seen the results from the survey, you conclude that there is a big gap in how the organization capture knowledge but also to identify appropriate KM solutions.

List and describe 7 steps that the organization needs to follow to identify appropriate KM solutions. (14)

Question 5:

Case study information: Another shortcoming that you identify is that there are senior managers in the organization that believe technology ONLY can solve the knowledge management problem. You know that this is not true and need to demonstrate this.

List the 7 KM sub processes and give at least 2 examples of mechanisms used for each of the 7 KM sub processes. (14)

Question 6:

Case study information: The Architecture function in the organization approaches you to advise them on how to position the implementation of Knowledge Management solutions. In the past they have not looked at these solutions in the context of KM. They ask you to prepare an Architecture diagram of a KM solution detailing all the technology components required for a KM solution in the capture, discover, application and sharing processes. You realize that the SOS Advisor solution you have seen before is a close fit.

Using a logical diagram, draw these components, briefly explain and show their relationship to one another. (8)

Question 7:

Case study information: The business continuity function (BUSCON) requests a session with you. In the session they share with you that they have over the last 3 years collected a huge amount of data on employee working patterns. With the onset of the COVID19 situation, they realize that there is invaluable knowledge locked up in the data that will allow them to plan their business continuity and business performance more effective. Recent advances in Machine Learning has shown promising results in the knowledge discovery. You decide to share an approach to the use of this technology to the BUSCON data science team.

Using a diagram, show the Machine Learning process as defined by David Chappell (12)

Question 8:

Case study information: The CEO is impressed with the work you have done so far and wants to implement the solutions for KM as fast as possible, but the Chief Financial Officer is skeptical of the actual benefits that KM will bring. You need to convince her of the benefits to ensure that the project goes ahead.

Name the areas that KM will have an impact on in the organization. Also explain HOW these impacts will benefit the organization. You can use a diagram as basis to show an assessment (8)

Question 9:

Case study information: The knowledge Capture team has asked for a best practice on capturing specialized knowledge in the organization. You identify that “a Concept map” is one of the most appropriate techniques that can be used capture and represent knowledge. To illustrate this approach, you use the example of writing a research report in a training session.

Create a concept map that shows the knowledge representation of concepts involved in the activity of “writing a research report”. (8)

Total (100)

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