



The University of Fiji



Post Graduate Programme
Department of Computer Science and Information
Technology
Semester 1 Year 2017

SPECIAL EXAMINATION PAPER

ITC451: Knowledge Management

Important Instructions to Students:

1. Read the questions, instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes reading time** (during this time, you are not allowed to write with pen) and **180 minutes (3 Hours) to complete this paper.**
3. Silent, non-programmable calculators are allowed, but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask from the supervisor. Write your name, course code and student identification number in the answer booklet and in the attendance sheet.
5. **This Final Course Examination Paper is worth 100 marks contributes 50% of the total course assessments.**
6. This paper contains three (3) sections A, B and C. All questions are compulsory to answer.
7. Write all your answers legibly. The marker has the right to award zero for answers that are not legible.
8. This is a **Closed Book Examination**. The University views plagiarism, cheating and dishonest practice as serious offences and if found, offenders are penalized.

Examination Paper Content (Format):

<u>Section</u>	<u>Question</u>	<u>Content</u>	<u>Marks</u>	<u>Suggested Time</u>
A	1-20	Short Answer Questions	40	43 minutes
B	1-10	Long answer Questions	40	72 minutes
C	1-8	Knowledge Extraction	20	65 minutes
		TOTAL	100	180 Minutes

Section A: Short answer questions
(20×2) 40 Marks

1. What are the benefits of knowledge management (KM)?
2. What is knowledge management (KM) in IT?
3. Outline the failure factors of KM.
4. What is explicit knowledge?
5. How does KM interpret into savings/expenses for the organization?
6. What is KM solution?
7. Briefly explain KM Infrastructure?
8. Define the type and nature of KM systems.
9. How does KM influences people?
10. Difference between information and knowledge.
11. Define:
 - Procedural knowledge
 - Declarative knowledge
12. Who performs KM assessment?
13. How do we learn as individuals?
14. How do teams learn?
15. How do organizations learn?
16. How do we know we are doing good KM?
17. Is KM suited for a particular type of organization?
18. Explain what a knowledge worker is.
19. What are the difficulties or challenges of KM?
20. What will ensure the success of KM in an organization?

long
Section B: ~~Short~~ answer questions
(10×4) 40 Marks

1. Discuss critically how an understanding of managing knowledge through history can help you manage knowledge today.
2. What is “knowledge translation”? Is transfer of knowledge (such as feedback conferences, reports, training, etc.) KM?
3. Is there any personal benefit from KM? Will KM disrupt my normal work process and habits?
4. Considering a specific area of expertise which has progressed within the last 5 years. Using the level of professional knowledge as a guide, describe the development of individual knowledge, what makes him/her reach the highest level?
5. Briefly Explain the traditional view of the relationship between Data, Information and Knowledge.
6. Select one firm which you are familiar with and consider the features a Knowledge management system (KMS) should be for this type of business; prepare a justification for developing the system.
7. Imagine you are one of the high ranked executive in your organization. Briefly outline any 6 ways to nurture human capital in your organization.
8. Assume you are the Project Manager of UNIFIJI and your job is to design KM platform and infrastructure of UNIFIJI. Define any SIX ideas and any SIX factors to be considered in leveraging the infrastructure successfully.
9. Explain the nature of organizational change and the role of leadership in change processes.
10. Discuss the relationship between organizational culture and knowledge management.

Section C: Data mining and Knowledge Extraction
(10×2) 20 Marks

1. Explain: **2 marks**
 - Tools for organising knowledge
 - Tools for capturing knowledge
 - Tools for sharing knowledge
 - Tools for storing and presenting knowledge
2. What are the aims and objectives of data mining? list the steps included in it planning. **2 marks**
3. Difference between machine learning vs artificial intelligence vs data mining. **2 marks**
4. What is database? How does K support decision making? **2 marks**
5. Differentiate between IT based knowledge sharing tool and non-IT based knowledge sharing tools. **2 marks**
6. What is the practical difference between association rules and classification in data mining? **2 marks**
7. What are the characteristics of an algorithm describe with an example. How to create arff file from excel? **2 marks**

8. Extract knowledge from database: the table shown below is a student grading system built upon student's performance in class tests and exams.

6 marks

- Calculate class tests performance in Table 1.
- Calculate allocated % (10%, 15%, 15%, and 10%) in Table 2.
- Calculate grade based on "Decision Support System" in Table 3.
- Analyze total Grade in Table 4.

Table 1: Students Performance (Awarded marks)

Student ID	First Name	Last Name	Assig-1	Assig-2	Test1	Test 2
S022134	Sahdia	Ali	23	23	23	23
S021867	Zamila	Khatun	22	22	21	20
S044342	Oasaha	Sagor	21	20	21	21
S021187	Nadia	Ali	45	45	40	40
S024565	Sana	Nisha	21	44	24	21
S033256	Sabiha	Papia	23	21	23	22
S022331	Sultana	Fariq	21	44	24	21
S011234	Bappi	Lahiri	23	21	23	22
S033124	Chand	Tara	22	20	21	22
S055645	Sagor	Shahnia	21	26	21	21
			10%	15%	15%	10%
			50	60	50	60

Table 2: Students Performance (% Calculation)

Student ID	First Name	Last Name	Assig-1 (%)	Assig-2 (%)	Test1 (%)	Test 2 (%)
S022134	Sahdia	Ali				
S021867	Zamila	Khatun				
S044342	Oasaha	Sagor				
S021187	Nadia	Ali				
S024565	Sana	Nisha				
S033256	Sabiha	Papia				
S022331	Sultana	Fariq				
S011234	Bappi	Lahiri				
S033124	Chand	Tara				
S055645	Sagor	Shahnia				
			10%	15%	15%	10%
			50	60	50	60

Table 3: Students Grading System (Formula for Grade Table)

Student ID	First Name	Last Name	CW/50	Exam/50	Total/100	Grade
S022134	Sahdia	Ali		44		
S021867	Zamila	Khatun		45		
S044342	Oasaha	Sagor		39		
S021187	Nadia	Ali		43		
S024565	Sana	Nisha		47		
S033256	Sabiha	Papia		39		
S022331	Sultana	Fariq		44		
S011234	Bappi	Lahiri		43		
S033124	Chand	Tara		37		
S055645	Sagor	Shahnia		48		

Table 4: Calculate total Grade

Grades	A+	A	B+	B	C+	C	D	E	EX	XX	Total
Mark Range	85 - 100	80 - 84	75 - 79	65 - 74	60 - 64	50 - 59	40 - 49	0 - 39	0		0
Number											
%											

The End