



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS
COMPUTER SCIENCE DEPARTMENT

QUALIFICATION: Bachelor of Computer Science (System Administration and Cyber Security)	
QUALIFICATION CODE: 07BACS, 07BCCS	LEVEL: 6
COURSE: Web Technologies	COURSE CODE: WTN620S
DATE: January 2019	SESSION: 1
DURATION: 2 Hours	MARKS: 70

SECOND OPPORTUNITY / SUPPLEMENTARY QUESTION PAPER	
EXAMINER:	Mr Colin Stanley
MODERATOR:	Mr Gereon Koch Kapuire

THIS EXAMINATION PAPER CONSISTS OF 2 PAGES
(EXCLUDING THIS FRONT PAGE)

INSTRUCTIONS

1. Answer ALL the questions on the answer scripts.
2. Write clearly and neatly.
3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. None.

- 1 Why is it incorrect to say that the Internet is the same as the World Wide Web (www).
[4 Marks]
- 2 Discuss the evolution of the World Wide Web from web 1.0 to web 4.0 and beyond. In web 1.0 highlight on the DotCom bubble.
[8 Marks]
- 3 Three-Tier Architecture seems to be a good approach for developing web applications, discuss this strategy with possible technologies required for each layer.
[6 Marks]
- 4 What is the significance of developing web applications in JavaScript compared to purely HTML?
[4 Marks]
- 5 Write a JavaScript program to allow the user to input two numbers and compute the average of the entered numbers. The program should only accept integers, if strings are inputted appropriate error message should be displayed.
[8 Marks]
- 6 Discuss the significance of using Model View Controller (MVC) framework for developing web applications.
[8 Marks]

7 Given in Figure 1 is an XML file representation of a conference paper.

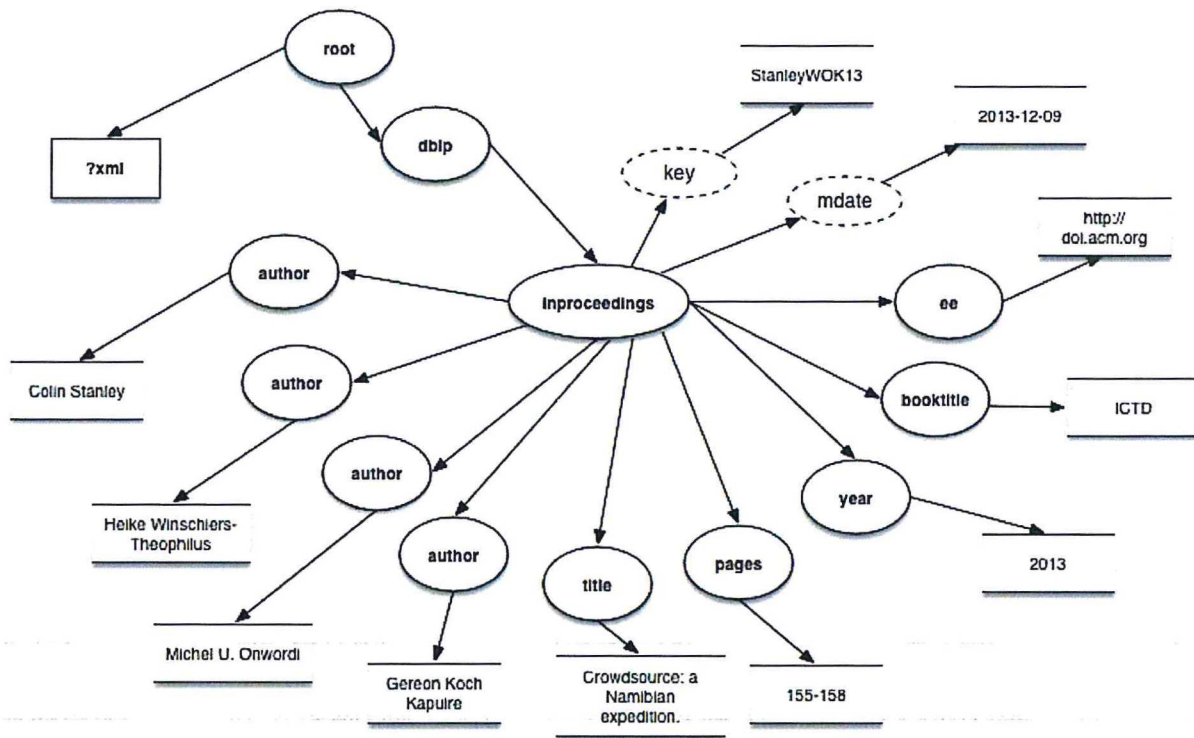


Figure 1: ConferencePaper.xml file visualised

7.1 Generate the equivalent conference paper XML file of the diagram shown in Figure 1

[12 Marks]

7.2 Discuss the importance of XML in Web Services.

[3 Marks]

8 What made JavaScript Object Notation (JSON) popular as compared with other predecessors web service technologies.

[5 Marks]

9 What are the prerequisite for consuming Web Services.

[6 Marks]

10 Discuss Resource Description Framework (RDF) in relation to Semantic Web.

[6 Marks]

—END OF QUESTION PAPER—