



COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT	INFORMATION & KNOWLEDGE MANAGEMENT
<u>MODULE NAME</u>	INTERNET INFRASTRUCTURES
<u>MODULE CODE(S)</u>	ILK2307/IMA8X04
<u>DATE</u>	NOVEMBER 2017 EXAMINATION
<u>DURATION</u>	3 HOURS
<u>TOTAL MARKS</u>	100

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<u>NUMBER OF PAGES</u>	3 PAGES

INSTRUCTIONS TO CANDIDATES:

- ANSWER **ALL** THE QUESTIONS.

QUESTION 1

As an Information Management consultant you have been contracted by a Medium sized South African clothing manufacturing company looking at taking advantage of the benefits associated with an Internet information infrastructure.

The company has a staff compliment of 450 employees in branches across South Africa (one branch in each of the 9 provinces). Clothing-for-Africa has three different suppliers of materials which are used during the manufacturing process. The company currently sell their clothing to a variety of retailers across the country but has as a 5 year strategic objective to expand the business into the international market, starting the Pan-African region.

The top management realised that business processes and technological capabilities needs to be enhanced to grow the business. In addition, they recognised that streamlining

services and offering value-ads via Internet-based technologies would provide the company with a tremendous edge and competitive advantage.

At present, Clothing-for-Africa have not evolved with technological trends and have a very limited information technology infrastructural setup. Currently, each branch has a Local Area Network with a number (varying from 5 to 9 per branch) PC workstations, some laptops for the representatives that sell the clothing as well as some network printers. They currently do not have access to the Internet meaning no Web or email.

The Management of Clothing-for-Africa have requested that you prepare a report reflecting on how the Internet and related technologies can impact on their business. In the answer for this question, apply your mind and what you have learned in this module and reflect on the following:

- 1.1 Explain what the Internet is. (3)
- 1.2 Discuss the difference between Internet (Upper case I) and internet (Lower case i) and give examples applicable to the detail described above. (5)
- 1.3 Explain what the Web is and how it relates to the Internet. (2)
- 1.4 Explain and differentiate between “the cloud” and “cloud computing” and apply it to the case details above by giving applicable examples. (5)
- 1.5 To create context, give a definition of each of the following network types: PAN, LAN, MAN, WAN and GAN. (10)
- 1.6 Explain and differentiate between the Internet, intranet and extranet and apply it to the case details above by giving applicable examples. (10)
- 1.7 Explain the concept of e-commerce and apply it to the case details above by giving applicable examples. (5)
- 1.8 Explain the concept of m-commerce and apply it to the case details above by giving applicable examples. (5)
- 1.9 Apply your mind and give details of a typical Internet infrastructure for the business as described in the detail above. (10)
- 1.10 Explain the concept of telecommuting and how it can be applied to the business detail above. (5)

[60]

QUESTION 2

The Internet of Things (IoT) is an environment in which objects and people are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. Apply your mind and what you have learned in this module and give your opinion on how Internet technologies can be integrated into a household environment, with specific reference to entertainment (e.g. TV and video), and secondly motor vehicle security.

[20]

QUESTION 3

- 3.1 Discuss the significance of packet switching on network connectivity and the Internet? (5)
- 3.2 Name and discuss five characteristics of ambient intelligence. (15)

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Total: [100]

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