

**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**Faculty of Management**

**Department of Management**

<b>QUALIFICATION: Bachelor of Business and Information Administration</b>	
<b>QUALIFICATION CODE: 07BBIA</b>	<b>LEVEL: 6</b>
<b>COURSE: Business Information Systems 2B</b>	<b>COURSE CODE: BIS621S</b>
<b>DATE: November 2019</b>	<b>SESSION: 1</b>
<b>DURATION: 2 Hours</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	<b>Mr G Kaisara</b>
<b>MODERATOR:</b>	<b>Ms S du Plessis</b>

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. You have to answer all questions.</li><li>2. Read all the questions carefully before answering.</li><li>3. Please number your answers clearly.</li><li>4. Make sure your student number appears on the answering script.</li></ol>

**PERMISSIBLE MATERIALS**

1. Blue/black pen and a ruler.

**THIS QUESTION PAPER CONSISTS OF 4 PAGES**  
(Including this front page)

**Question 1**

**[10 Marks]**

Multiple Choice Questions – Choose the most appropriate option.

- 1.1 This type of information system produces summarised reports and lists, usually suitable for long term situations.
- a) Decision Support System
  - b) Transaction Support System
  - c) Management Information System
  - d) Executive Support System
- 1.2 Two or more computing devices that are connected to each other to share the resources are known as;
- a) Peripheral Devices
  - b) Network
  - c) Databases
  - d) Strategic Systems
- 1.3 This is system is used in self-driving cars and robots.
- a) Wisdom System
  - b) Artificial Intelligence
  - c) Decision Support System
  - d) Expert System
- 1.4 This refers to the physical or logical layout of a system.
- a) Network topology
  - b) Synchronous System
  - c) TCP/IP
  - d) Net etiquette
- 1.5 Devices that are connected to a computer but are not part of the core computer architecture
- a) Peripheral device
  - b) Node
  - c) Electronic device
  - d) Information System
- 1.6 Which of these is the odd one out?
- a) Google
  - b) Facebook
  - c) Twitter
  - d) Instagram

- 1.7 It allows for technologies to generate, share and connect content through search and analysis based on the ability to understand the meaning of words, rather than on keywords or numbers.
- a) Semantic Web
  - b) Static Web
  - c) Web logic
  - d) Data mining
- 1.8 A network that covers a small city may be a...
- a) LAN
  - b) MAN
  - c) WAN
  - d) Wireless
- 1.9 John, Sam and Susan use hotspot technology to use data from Susan's phone. What network architecture has been created here?
- a) Client Based Networks
  - b) Server Based Networks
  - c) Peer to peer Networks
  - d) None of the above.
- 1.10. ... provides immediate updating of databases and/ or master files, thereby allowing for immediate responses to user inquiries.
- a) e-Commerce
  - b) Office automation systems
  - c) Real-time processing
  - d) Database management

**Question 2**

**[40 Marks]**

- 2.1 Discuss five primary stages of Porter's Value Chain. [10]
- 2.2 Differentiate the two broad categories of Transaction Processing Systems, giving examples. [6]
- 2.3 Working with sensitive information is part of an Administrative Assistant's role. Give and discuss two ways in which sensitive information may be protected. [4]
- 2.4 The world is moving more towards Software as a Service (SaaS). Define what it means, and give two reasons/advantages of using SaaS. [5]

- 2.5 In drop-shipping, generally how many parties/entities are involved? Name them [4]
- 2.6 Discuss the meaning of functional area information systems (FAIS), one disadvantage that arise due to their use, and the solution to such a problem. [3]
- 2.7 On the usual organisational pyramid, which level is FAIS found? [1]
- 2.8 List any three types of virtual communities online. [3]
- 2.9 Name and discuss any two challenges faced by Business Intelligence. [4]

**Question 3**

**[40 Marks]**

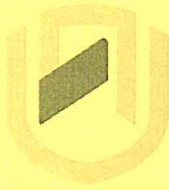
- 3.1 Traditionally, enterprises are said to have three levels. Identify the three levels, and indicate a type of information system that is commonly found at that level. [6]
- 3.2 Indicate which forms of eCommerce is described below:
- 3.2.1 Inland Revenue pays a tax rebate to a citizen electronically. [1]
- 3.2.2 Windhoek Municipality orders computers through Amazon or Alibaba. [1]
- 3.2.3 Student buys a phone on eBay [1]
- 3.2.4 Intercape places an order for buses through the internet. [1]
- 3.2.5 The Ministry of Defence places an order with the Ministry of Tourism. [1]
- 3.3 Differentiate Web 1.0, Web 2.0, and Web 3.0. [6]
- 3.4 Using your understanding, list any 5 dangers of social computing facing STUDENTS [10]
- 3.5 Draw and label any four network topologies. [8]
- 3.6 List any five ethical challenges in Information Systems/Technology. [5]

**Question 4**

**[10 Marks]**

- 4.1 Wiki
- 4.2 Blog
- 4.3 Enterprise 2.0
- 4.4 Sneakernet
- 4.5 Synchronous collaboration





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### Question 1

[10 Marks]

Multiple Choice Questions – Choose the most appropriate option.

- 1.1 This type of information system produces summarised reports and lists, usually suitable for long term situations.
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  - d) **Executive Support System**
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  - d) None of the above.
- 1.10. ... provides immediate updating of databases and/ or master files, thereby allowing for immediate responses to user inquiries.
- a) e-Commerce
  - b) Office automation systems
  - c) **Real-time processing**
  - d) Database management

## Question 2

[40 Marks]

- 2.1 Discuss five primary stages of Porter's Value Chain. [10]
- **Inbound Logistics:** the receiving, storing, and distributing of raw materials used in the production process.
  - **Operations:** the stage at which the raw materials are turned into the final product.
  - **Outbound logistics:** the distribution of the final product to consumers.
  - **Marketing and sales:** involves advertising, promotions, sales-force organization, distribution channels, pricing, etc.
  - **Service:** the activities needed to maintain the product's performance after it has been produced, and includes thinking likes installations.



[2 marks each]

- 2.2 Differentiate the two broad categories of Transaction Processing Systems, giving examples. [6]
- *Batch processing [1]; this is whereby data is collected and then processed periodically as a batch [1]. An example are the pay claims that are lodged by people who are paid per hour worked [1].*
  - *Real-time processing [1]; in this case data is processed immediately at the moment of the occurrence of the transaction [1]. An example is the bank system updating your balance as soon as you withdraw money via ATM [1].*
- 2.3 Working with sensitive information is part of an Administrative Assistant's role. Give and discuss two ways in which sensitive information may be protected. [4]
- *Firstly, the more sensitive information is, the less people should have access to it.*
  - *Secondly, those people who are authorized to access the information should have minimal ability to share that information.*
- [2 marks each]
- 2.4 The world is moving more towards Software as a Service (SaaS). Define what it means, and give two reasons/advantages of using SaaS. [5]
- *Software as a Service refers to the provision of software via the internet or cloud services [1]. An organization may use it as it allows as they can have access to real-time updates to the software [2], or so as to have access to experts who can provide the needed [2]. **{Consider student contributions}***
- 2.5 In drop-shipping, generally how many parties/entities are involved? Name them [4]
- *Three parties involved [1], and these are the e-commerce store [1], the manufacturer [1], and the customer [1].*
- 2.6 Discuss the meaning of functional area information systems (FAIS), one disadvantage that arise due to their use, and the solution to such a problem. [6]
- *This is a system that is deployed in a particular department to serves its unique needs [2]. A common disadvantage is that various systems in an organization may stand as silos, not communicating [2]. And the solution is to provide Enterprise Resource Planning Systems, which unify various FAIS [2].*
- 2.7 On the usual organisational pyramid, which level is FAIS found? [2]
- *It stretches from the bottom, all the way to the top.*

- 2.8 List any three types of virtual communities online. [3]
- *Gender groups*
  - *Ethnic groups*
  - *Student groups, etc.*
- [1 mark each]*
- 2.9 Name and discuss any two challenges faced by Business Intelligence. [4]
- **Data latency** refers to the staleness of data, that is, the value of data degrades rapidly with its age. When people are relying on real-time business intelligence to tactically help them with on-the-spot decisions, the most recent data and the fastest response times are needed to achieve that [2].
  - **Data unavailability** is a death knell for businesses. If a company's operations have progressed to the point that they are dependent on real-time business intelligence, the unavailability of this intelligence due to a failed system could bring operations to a halt [2].

### Question 3

[40 Marks]

- 3.1 Traditionally, enterprises are said to have three levels. Identify the three levels, and indicate a type of information system that is commonly found at that level. [6]
- *Bottom level, which is called the operational level. A TPS is commonly found at this level.*
  - *Middle level, which is called the management level. A Management Information System (MIS) is commonly found here.*
  - *Top level, which is called the executive level. Executive Information Systems are commonly found here.*
- [1 mark for each level, 1 mark for the correct Information System]*
- 3.2 Indicate which forms of eCommerce is described below:
- 3.2.1 Inland Revenue pays a tax rebate to a citizen electronically. [G2C] [1]
- 3.2.2 Windhoek Municipality orders computers through Amazon or Alibaba. [B2A] [1]
- 3.2.3 Student buys a phone on eBay [B2C] or [C2C] [1]
- 3.2.4 Intercape places an order for buses through the internet. [B2B] [1]
- 3.2.5 The Ministry of Defence places an order with the Ministry of Tourism. [A2A] [1]
- 3.3 Differentiate Web 1.0, Web 2.0, and Web 3.0. [6]
- *Web 1.0: it is characterized by one way communication, as the pages are static and "read-only".*

- *Web 2.0: there is two way communication and collaboration. Pages are responsive to user input.*
- *Web 3.0: Similar to 2.0 but more advanced, with an element of artificial intelligence and semantic web.*

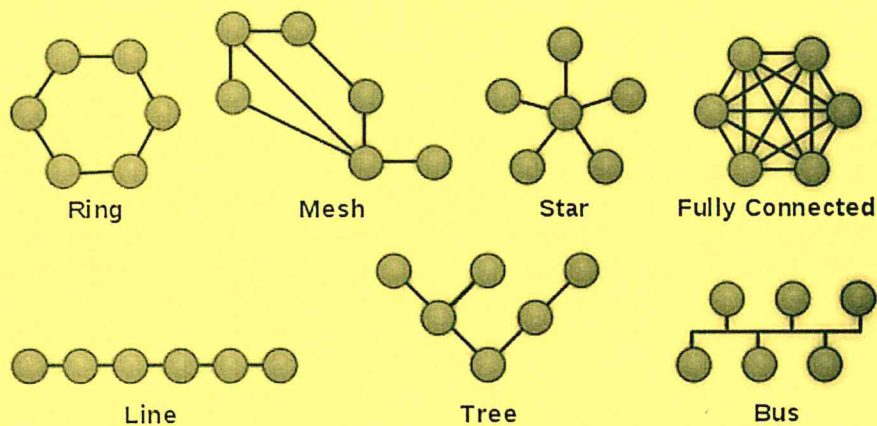
[2 marks]

3.4 Using your understanding, list any 5 dangers of social computing facing STUDENTS [10]

- *cyberbullying (bullying using digital technology): students can be bullied*
- *invasion of privacy: nothing online is 100% secure. Hence privacy may always be compromised.*
- *identity theft: if one doesn't look off properly or easily shares information online, it could be possible to steal their identity, each, e-NUST access details.*
- *Seeing offensive images and messages: there are students who sometimes are exposed offensive material such as pornography.*
- *The presence of strangers who may be there to 'groom': students are not always tech savvy. Hence they could fall victim to human traffickers.*

[2 marks each – consider alternative answers]

3.5 Draw and label any four network topologies. [8]



[1 mark for each drawing, 1 mark for correct label]

3.6 List any five ethical challenges in Information Systems/Technology. [5]

- *Privacy*
- *Web tracking*
- *Disintermediation*
- *Copyright Infringements*
- *Net Neutrality*

[1 mark each]

**Question 4**

**[10 Marks]**

- 4.1 Wiki - a website that allows users to change, add to, or get rid of the information on the page
- 4.2 Blog - A frequent, chronological publication of personal thoughts and Web links
- 4.3 Enterprise 2.0 – An organization that has integrated Web 2.0 technologies into its systems or operations.
- 4.4 Sneakernet – An era when people were the connectors, walking around to deliver files physically.
- 4.5 Synchronous collaboration – when various parties are collaborating together at the same time.

**[2 marks each]**