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| FACULTY/COLLEGE | College of Business and Economics |
| SCHOOL | School of Consumer Intelligence and Information Systems |
| DEPARTMENT | Applied Information Systems |
| CAMPUS(ES) | DFC |
| MODULE NAME | Systems Analysis and Design |
| MODULE CODE | SAD01A1/BSO11A1 |
| SEMESTER | First |
| ASSESSMENT OPPORTUNITY, MONTH AND YEAR | Supplementary Summative Assessment Opportunity July 2019 |

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| ASSESSMENT DATE | July 2019 | SESSION | |
| ASSESSOR(S) | Mrs R Minty | | |
| MODERATOR(S) | Dr G Barlow-Jones | | |
| DURATION | 2 hours (120 min) | TOTAL MARKS | 100 |

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| NUMBER OF PAGES OF QUESTION PAPER (Including cover page) | 9 |
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INFORMATION/INSTRUCTIONS:

- This is a closed-book assessment.
- There are 7 questions. **Answer ALL questions**
- Answer the multiple-choice question on page 1.
- Read the questions carefully and answer only what is required.
- Number your answers clearly and correctly as per the question paper.
- Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.

QUESTION 1: MULTIPLE CHOICE**[20 MARKS]****Write down the question number and next to it the letter of your choice e.g. 1.1 D**

- 1.1 One form of software theft is the theft of the software from software manufacturers, which is known as piracy. Because this has historically been rather easy to do, the practice has become very common. As a computer instructor you feel it is your responsibility to explain this practice to students through the use of some examples. Which of the following is **NOT** permissible under a single-user license agreement?
- a. Jamie installs Quark Xpress on a single computer.
 - b. Christine leases her copy of Dreamweaver.
 - c. Phuong-Dao makes one copy of Microsoft Office 2013 as a backup.
 - d. Isaiah sells his copy of Adobe Photoshop CS6, having removed it from his computer first.
- 1.2 Social engineering, as it pertains to computers, is _____.
- a. creating consumer and personal profiles by tracking website history and electronic purchases
 - b. compiling data from multiple computer users in order to make predictions about computer trends
 - c. filtering Internet content to targeted users based on their personal preferences
 - d. gaining unauthorized access or obtaining confidential information by taking advantage of the trusting nature or naivety of users
- 1.3 Which of the following terms is used to describe a scam in which a website includes a button, image or link that contains a malicious program?
- a. war driving
 - b. spitting
 - c. clickjacking
 - d. spimming
- 1.4 What term is used to describe the process of restricting access to certain material on the web?
- a. content filtering
 - b. information monitoring
 - c. data mining
 - d. social profiling

- 1.5 Which of the following terms is used to describe a small text file that a web server stores on your computer?
- a. a breadcrumb b. a nugget
 - c. a cracker d. a cookie
- 1.6 In order to safeguard your personal information, which of the following is recommended?
- a. Fill out rebates and warranty forms completely to provide the manufacturer with as much information as possible in case you need to contact them.
 - b. Clear your history file when you are finished browsing.
 - c. Preprint your telephone number on your personal checks so businesses can reach you quickly if they determine there is a problem with your purchase.
 - d. Use shopping club and buying cards when shopping to remain anonymous.
- 1.7 Which of the following statements is not true about backing up?
- a. Backup programs are available from many sources.
 - b. Continuous data protection typically is used only by large enterprises.
 - c. With a selective backup, all of the files in the computer automatically are chosen to be copied.
 - d. A backup is a duplicate of a file, program, or disk.
- 1.8 Which of the following terms is used to describe an encrypted code that a person, website, or organization uses to verify the identity of the message sender?
- a. a certificate authority b. a digital signature
 - c. an encryption key d. a hash
- 1.9 What type of software restricts access to specified websites?
- a. spam filtering b. net filtering
 - c. web filtering d. phishing

- 1.10 What is an EULA intended to do?
- a. license software for individual use
 - b. outline computer activities for which the computer and network may or may not be used
 - c. contract with an outside organization to provide security and recovery services for a network
 - d. establish a network of computers, such as a homegroup
- 1.11 When a waiter at a restaurant steals credit card numbers to make fraudulent purchases, this is called _____.
- a. information theft
 - b. software theft
 - c. digital forensics
 - d. decryption
- 1.12 Which of the following can be used to create a software registration number, sometimes illegally?
- a. BSA
 - b. decryption key
 - c. keygen
 - d. public key
- 1.13 Which of the following statements is **NOT** true about biometric devices?
- a. Personal characteristics are unique and cannot be forgotten or misplaced.
 - b. Biometric devices are an unreliable method of identification and notification.
 - c. Examples include fingerprint readers and hand geometry systems.
 - d. Biometric devices translate a personal characteristic into a digital code.
- 1.14 Which of the following does your financial service institution use to secure the transactions you make using their phone banking service?
- a. digital forensics system
 - b. voice verification system
 - c. iris recognition system
 - d. hand geometry system

- 1.15 The term CAPTCHA is _____.
- a. a private combination of words associated with a user name that allows access to computer resources
 - b. the average time it takes a computer to discover a password based on the number of characters
 - c. a digital image used to help decipher a faded or blurry word in digitized news archives
 - d. a series of distorted characters that a user is required to enter correctly to continue using a website
- 1.16 Which of the following terms is used to describe a file a computer creates that records successful and unsuccessful access attempts?
- a. an access control
 - b. an attempt log
 - c. an attack index
 - d. an audit trail
- 1.17 What is an AUP intended to do?
- a. license software for individual use
 - b. outline computer activities for which the computer and network may or may not be used
 - c. contract with an outside organization to provide security and recovery services for a network
 - d. establish a network of computers, such as a homegroup
- 1.18 The term firewall is _____.
- a. the access point a hacker uses to intrude on a computer or network
 - b. a program that searches for cybercriminals by looking for patterns in attacks
 - c. hardware and/or software that protects a network's resources from intrusion
 - d. a virus that prevents the computer or network from accessing outside resources
- 1.19 Which of the following refers to a technique intruders use to make their network or Internet transmission appear legitimate to a victim computer or network?
- a. spoofing
 - b. phishing
 - c. veiling
 - d. costuming

- 1.20 The term back door, as it refers to computer crime, is _____.
- a. the area of memory where information about a virus or attempted attack is sent by the antivirus software in order to prevent similar attacks in the future
 - b. a program or set of instructions that allows users to bypass security controls when accessing a program, computer, or network
 - c. the vulnerabilities of a computer criminal or criminal network that enable them to be tracked and caught
 - d. a weakness in a computer or network's security system that enables criminals to gain unauthorized access

QUESTION 2: MATCHING**[10 MARKS]**

Write down the question number and next to it the letter of your choice e.g. 1.1 D

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|----------------------|--------------|
| A. Output | I. DVI |
| B. candela | J. OMR |
| C. display | K. plasma |
| D. plotter | L. RFID |
| E. response time | M. impact |
| F. portrait | N. thermal |
| G. native resolution | O. landscape |
| H. UPC | |

- 2.1 Kind of bar code used by retail and grocery stores
- 2.2 Kind of printer used to produce high-quality drawings such as maps and circuit diagrams
- 2.3 Technology that uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person
- 2.4 The standard unit of luminous intensity
- 2.5 A technology that reads hand-drawn marks such as small circles or rectangles
- 2.6 Type of display that sandwiches a layer of gas between two glass plates
- 2.7 Printer that forms characters by striking a mechanism against an inked ribbon
- 2.8 Self-service gas pumps often print receipts using this kind of printer

2.9 The time in milliseconds it takes to turn a pixel on or off

2.10 Orientation that is wider than it is tall

QUESTION 3

[15 MARKS]

3.1 List **FIVE (5)** advantages of SSDs over hard disks. (5)

3.2 List **THREE (3)** disadvantages of SSDs over hard disks. (3)

3.3 Discuss **FIVE (5)** things you could do as an individual to contribute to Green Computing. (5)

3.4 Can I make copies of songs or other media that I have purchased and downloaded from a legitimate website such as iTunes? Explain your answer in detail. (2)

QUESTION 4

[8 MARKS]

4.1 Distinguish between data and information. Provide an example of data and its corresponding information. (4)

4.2 How can you protect your hearing when using earbuds or headphones? Provide **FOUR (4)** steps that one should follow. (4)

QUESTION 5

[15 MARKS]

5.1 Is the World Wide Web (www) the same as the Internet? (3)

5.2 Connecting wirelessly to a public hot spot at an airport or restaurant can be convenient and practical. However, using this free service can be extremely risky. Describe **FOUR (4)** guidelines you should follow for safe browsing while using a public hot spot. (4)

5.3 Who is an Internet Service provider (ISP)? (1)

5.4 The Internet relies on an addressing system to send data to a computer or device at a specific destination. Provide a brief description for each of the following terms.

5.4.1 IP address (1)

5.4.2 Domain Name (1)

5.4.3 Top-level domain (TLD) (1)

5.4.4 ccTLD (1)

5.5 E-commerce is short for electronic commerce, which is a business transaction that occurs over an electronic network, such as the Internet. Three types of e-commerce by consumers include B2B, B2C and C2C. For each of the items below indicate the type of e-commerce site.

5.5.1 (1)



5.5.2 (1)



5.5.3 (1)



QUESTION 6**[13 MARKS]**

- 6.1 What is a wearable device? (1)
- 6.2 List and describe **THREE (3)** popular types of wearable devices. (6)
- 6.3 With the use of an example, explain what an embedded computer is. (2)
- 6.4 How can you tell if someone is addicted to technology? Provide **FOUR (4)** signs that would indicate that someone is addicted to technology. (4)

QUESTION 7**[19 MARKS]**

- 7.1 Differentiate between computer-based training and web-based training. (2)
- 7.2 Processor chips for laptops, desktops and servers can generate quite a bit of heat, which could cause the chip to malfunction or fail. These computers will require additional cooling. List **THREE (3)** cooling technologies used in computers. (3)
- 7.3 Home and business users choose cloud computing for a variety of reasons. Discuss **FOUR (4)** of these reasons. (8)
- 7.4 Provide a description for each of the different types of memory available on a computer.
- 7.4.1 RAM (2)
 - 7.4.2 ROM (2)
 - 7.4.3 Cache (2)