UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017

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COURSE NAME	:	COMPUTER, ETHICS AND SOCIAL
COURSE CODE	:	BIT 21002
PROGRAMME CODE	:	BIT
EXAMINATION DATE	:	DECEMBER 2016 / JANUARY 2017
DURATION	:	2 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **EIGHT (8)** PAGES

SECTION A

Instruction: Choose the BEST answer for each of the following questions.

Q1   A piece of self-replicating code embedded within another program is called a

(2 marks)

    A.   rogue.
    B.   Trojan horse.
    C.   virus.
    D.   worm.

Q2   Web sites that look attractive to hackers, but are closely monitored so that everything the hacker does at the site is recorded and studied are known as:

(2 marks)

    A.   Honey pots
    B.   Digital surveillance
    C.   Computer Entrapment
    D.   Hacker crackdown

Q3   A self-contained program that spreads through a computer network by exploiting security holes is called a

(2 marks)

    A.   rogue.
    B.   Trojan horse.
    C.   virus.
    D.   worm.

Q4   An intentional action designed to prevent legitimate users from making use of a computer service is called

(2 marks)

    A.   a bombing run.
    B.   phishing
    C.   a denial-of-service attack.
    D.   phreaking.

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Q5 The process of determining that a user has permission to perform a particular action on a computer is called

(2 marks)

A. accountability.
B. authentication.
C. authorization.
D. debugging.

Q6 Compared with other peer-to-peer networks, BitTorrent takes advantage of the fact that broadband Internet connections

(2 marks)

A. continue to drop in price.
B. are immune from surveillance by the police.
C. provide higher speeds for downloading than for uploading.
D. have become the standard in most homes in the United States.

Q7 The Linux operating system is an example of

(2 marks)

A. free-market software.
B. open-source software.
C. pirated software.
D. proprietary software.

Q8 The proper noun "Kleenex" is protected

(2 marks)

A. as a trade secret.
B. with a trademark.
C. with a patent.
D. with a copyright.

Q9 A public record contains information about an incident or action reported to a government agency for the purpose of

(2 marks)

A. enhancing public safety.
B. informing the public.
C. regulating the economy.
D. upholding the law.

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Q10   A program with a benign capability that conceals another, sinister purpose is called a

(2 marks)

A.   rogue.
B.   Trojan horse.
C.   virus.
D.   worm.

Q11   A software program that responds to commands sent by a command-and-control program located on an external computer is called a

(2 marks)

A.   bot.
B.   spoof.
C.   vampire.
D.   virus.

Q12   Suppose you buy a Microsoft game at the bookstore. Under copyright law, which of the following actions is illegal?

(2 marks)

A.   Copying it onto a CD to give or sell to someone else.
B.   Preloading it onto the hard disk of a computer being sold.
C.   Distributing it over the Internet.
D.   All of the above are illegal.

Q13   The Ariane 5 satellite launch vehicle failed because

(2 marks)

A.   a faulty on-board computer caused the other computers in the network to crash repeatedly.
B.   a bad sensor fed faulty information into the flight control computer, causing it to fail.
C.   code that worked correctly on the Ariane 4 failed on the Ariane 5.
D.   a software failure caused the rocket to self-destruct when in actuality the rocket's flight was going perfectly.

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Q14 The process of determining if a model is an accurate representation of the real system is called

(2 marks)

    A.   null hypothesis.
    B.   synthesis.
    C.   validation.
    D.   verification.

Q15 Computer simulations can

(2 marks)

    A.   accurately predict the weather a month in advance.
    B.   save automobile manufacturers time and money as they develop new cars.
    C.   prove our planet is overpopulated.
    D.   all of the above

Q16 Unlike most professionals, the typical software engineer

(2 marks)

    A.   does not have a college education.
    B.   does not make important decisions.
    C.   does not make more than minimum wage.
    D.   does not work directly with individual clients.

Q17 A principal factor contributing to the loss of the space shuttle Challenger was that

(2 marks)

    A.   its payload was too heavy.
    B.   there were no experienced astronauts on board.
    C.   the weather in Florida was unusually cold.
    D.   it was hit by lightning.

Q18 Which philosopher argued in The Second Treatise of Government that people have a natural right to property?

(2 marks)

    A.   Jeremy Bentham
    B.   Immanuel Kant
    C.   John Locke
    D.   John Stuart Mill

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Q19   Intellectual property is a unique product of the human intellect that

(2 marks)

A.   has commercial value.
B.   can be reproduced digitally.
C.   has been produced on paper.
D.   can be performed in public

Q20   Sometimes it is legal to reproduce a copyrighted work without the permission of the copyright holder. These circumstances are called

(2 marks)

A.   fair use.
B.   noncommercial use.
C.   patent.
D.   public domain.

SECTION B

Instruction: Answer ALL questions.

Q21 (a) Describe **THREE (3)** modern information technology devices and how they may be used to reduce privacy.

(6 marks)

(b) Give **TWO (2)** examples of how organizations are applying the techniques of data mining to information contained in social networks.

(4 marks)

(c) Some online retailers are using information gathered about their customers to offer different prices to different people. What is your position on the morality of this strategy? Justify your answer.

(6 marks)

Q22 (a) Differentiate between social contract theory and cultural relativism.

(4 marks)

(b) Questions **Q22(b)(i)-Q22(b)(ii)** are based on **Figure Q22 (b).**

```
Anuar Zain is a well-known singer in Malaysia. All of his songs are
made available on CDs. One day you copy a CD containing his
copyrighted songs and give it to your friends.
```
Figure Q22 (b)

Analyse the moral judgement using the following ethical theories:

(i) Social Contract Theory

(5 marks)

(ii) Act Utilitarian

(5 marks)

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Q23   (a)   How has the Digital Millennium Copyright Act affected fair use of copyrighted materials?

(3 marks)

(b)   Suggest **THREE (3)** different technologies that have been used or proposed for digital rights management.

(6 marks)

(c)   Question **Q23(c)** is based on **Figure Q23(c)**.

```
Suppose your music band has recorded a song and posted it as an
MP3 file on your Web site.
```

Figure Q23(c)

Suggest **TWO (2)** ways you can allow people to download your music for noncommercial purposes while retaining your copyright on the song.

(6 marks)

(d)   Question **Q23(d)** is based on **Figure Q23(d)**.

```
Suppose company A wants to develop a program that duplicates the
functionality of a program made by company B.
```

Figure Q23(d)

Describe how company A may do this without violating the copyrights held by company B.

(5 marks)

Q24   (a)   Explain **TWO (2)** characteristics of the Internet which make censorship of the Internet difficult.

(6 marks)

(b)   Describe with example how the government of a country regulate the use of the Internet.

(4 marks)

- END OF QUESTIONS -

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