



STUDENT SECTION

Name			Class	
Student MOE number (SIS)		School MOE Number		STUDENT SIGNATURE
School name				

Computer Science

Grade 12

Term 2 Examination - Sample

Date: 6th March 2018

Time: 10:00am

Duration: 45 minutes

STUDENT INSTRUCTIONS –
Students must attempt **all** questions
For this examination, you must have:
1. An ink pen – blue.

TEACHER NOTES & INSTRUCTIONS

Please tick ✓ the correct answers in **RED INK** and then write the mark awarded in the marking columns. With multiple mark answers highlight where the mark is awarded by **underlining** or by using an extra tick.

FOR ADMIN ONLY

MARKING RECORD

Section	Section TOTALS
Section 1	
Section 2	
Section 3	
Section 4	
Section 5	
MARKER SIGNATURE	TOTAL MARKS
MODERATOR SIGNATURE	

SECTION 1 – Multiple Choice

Choose and circle the correct answer – A, B, C or D. (2 marks each)

Example: _____ is adherence to a code that ensures data is real, accurate and safeguarded from unauthorized users.

- A. Exploit
- B. Integrity
- C. Hacking
- D. Threat

1. Penetration _____ is a method of testing and enhancing security measures on information systems
 - A. security
 - B. testing
 - C. vector
 - D. violation
2. _____ footprinting creates devices, endpoints or services within the target environment directly.
 - A. Passive
 - B. Port
 - C. Indirect
 - D. Active
3. A _____ hacker is also known as a cracker or illegal hacker.
 - A. white hat
 - B. grey hat
 - C. black hat
 - D. script kiddie
4. _____ is the first phase of the ethical hacking process.
 - A. footprinting
 - B. reporting
 - C. enumeration
 - D. scanning
5. The acronym _____ indicates that data should be processed immediately.
 - A. UDP (User Datagram Protocol)
 - B. TCP (Transmission Control Protocol)
 - C. ICMP (Internet Control Message Protocol)
 - D. URG (urgent)

SECTION 2 – True Or False

Choose and circle the correct answer **TRUE** or **FALSE**.

(2 marks each)

Example: Scanning is the fourth phase of penetration testing.

TRUE FALSE

1. Footprinting is also known as Reconnaissance.

TRUE FALSE

2. The domain name system (DNS) transforms domain names to IP addresses.

TRUE FALSE

3. Computer worms are a type of port scanning.

TRUE FALSE

4. Passive footprinting uses publicly available information on the internet.

TRUE FALSE

5. A blue hat hacker is a blend of both black hat and white hat hackers.

TRUE FALSE

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SECTION 3 – Ordering

For the process of footprinting, arrange the process steps in the correct order. Write the process step name in the correct box.

The first one has been done for you.

(2 marks each)

Process Step Names:

Perform techniques such as Whois

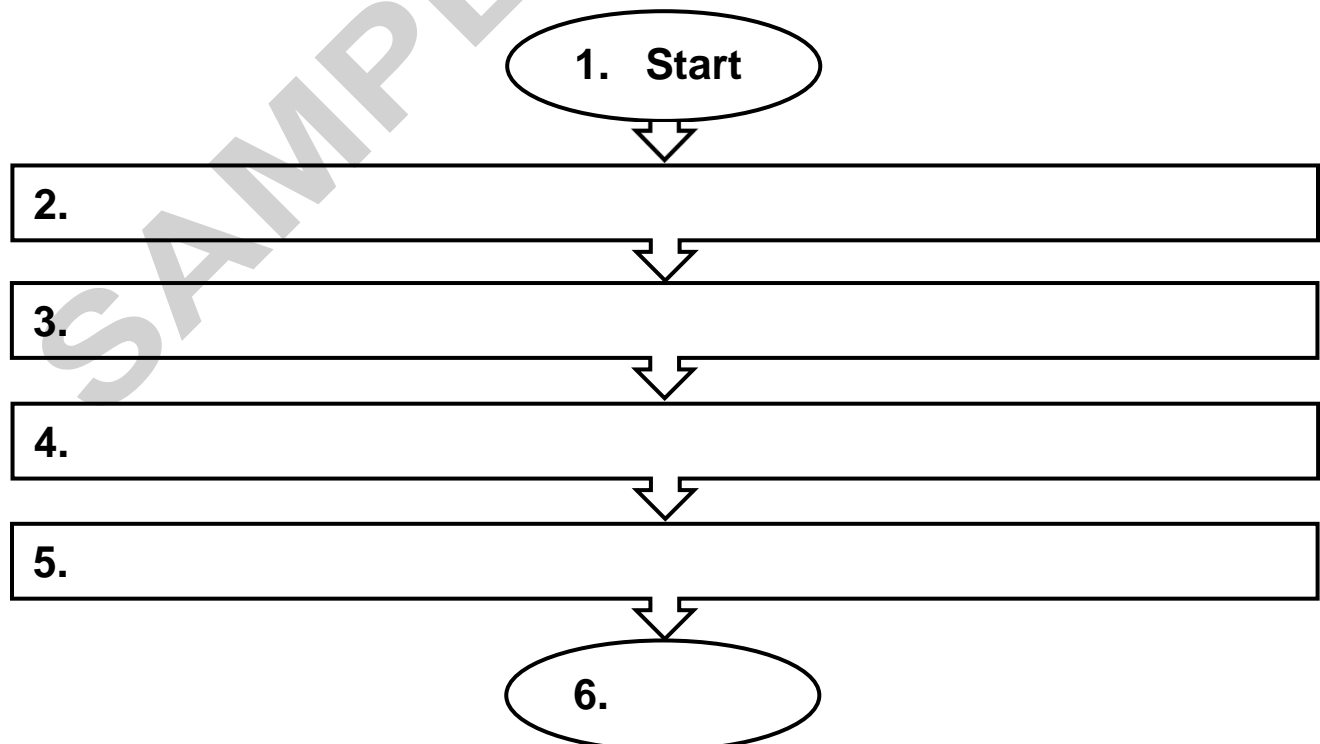
End

Find vulnerabilities and exploits

Determine the operating system

Start

Collect basic information about the target



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SECTION 4 – Matching

Match the vulnerability scanning types and terms to their appropriate definitions.
Write the matching letter in the correct box.

The first one has been done for you.

(2 marks each)

Terms

Definitions

Example Vulnerability scanning	C
1. Network enumerator	
2. Computer worm	
3. Port scanner	
4. Network vulnerability scanner	
5. Web application security scanner	

A. A program that communicates with an web application to find security vulnerabilities
B. A system that proactively scans for network weaknesses or flaws
C. An automated process of identifying vulnerabilities of computing systems.
D. A program used to get information about users and groups on networks
E. Checks a server or host for open ports
F. A type of self-replicated computer malware

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SECTION 5 – Short Answer Questions

1. Emails may contain malware spam. This could give the hacker illegal access to your computer and can deliver a virus or malicious code. **(4 marks)**

Write any two ways to protect your computer from a malware spam attack.

a) _____
 _____ **(2 marks)**

b) _____
 _____ **(2 marks)**

2. During footprinting, an ethical hacker is tries to collect information about the network, host and the organisation. **(6 marks)**

For each category, write 2 items of information that an ethical hacker would gather during the footprinting stage. An example for each category has been provided.

Network (Network Information)	<ul style="list-style-type: none"> • DNS • • <p style="text-align: right;">(2 marks)</p>
Host (Computer Information)	<ul style="list-style-type: none"> • Listening Services • • <p style="text-align: right;">(2 marks)</p>
Organisation (Company Information)	<ul style="list-style-type: none"> • Organisation Structure • • <p style="text-align: right;">(2 marks)</p>

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TOTAL / 50

End of Examination