

School of Engineering, Computing and Built Environment

Department of Computing

Diploma in Computer Studies

FUNDAMENTALS OF SECURITY IN ETHICAL HACKING (DCS22104)

January 2022 Semester

Midterm Examination

Duration: 1 hour

Total Marks: 100

Instructions

1. This examination paper consists of **2 pages**, including this cover page.
2. There are 4 sections: Section A (25 marks)
 Section B (25 marks)
 Section C (25 marks)
 Section D (25 marks)
3. Read carefully the instructions printed at the beginning of each section.
4. All answers are to be written in the answer booklet(s) provided. Use black or blue ink only. Pencils may be used for sketches and diagrams.
5. Students caught copying, or having any unauthorized material, or engaging in any form of action with the intention to cheat will be penalized.

Screen record: [DCS22104 MT202201 RECORD](#)

Section A (25 marks)

Answer all questions.

- 1) Classify the following software tools into malicious-impact table. (10 marks)

Internet relay chat (IRC)	Spreadsheet	Text editor	Video call application
Ransomware	Spyware	Trojan	Worm

- 2) Determine which of the three digital assets is the most valuable and irreplaceable. (1 mark)
- 3) Information for a company should fulfill CIA requirements. State and explain the components of CIA requirements. (9 marks)
- 4) State five basic search parameters that can be found using a network enumerator. (5 marks)

Section B (25 marks)

Answer all questions.

- 1) Explain three reasons that insiders could pose more threats than the outsiders in a company. (6 marks)
- 2) Discuss the processes involved in hazard analysis to identify a system vulnerability. (12 marks)
- 3) Describe a malware in three points. (3 marks)
- 4) Discuss two possible impacts for a time bomb malware. (4 marks)

Section C (25 marks)

Answer all questions.

- 1) Write a set of commands to configure and run a SSH service with the following parameters. Then, observe the status of SSH service. (12 marks)

Attribute	Value
Host IP	192.168.3.34
Threads	255
Timeout	60

- 2) Describe a social engineering attack. (1 marks)
- 3) State and explain four social engineering attacks. (12 marks)

Section D (25 marks)

Answer all questions.

- 1) Discuss five possible steps that can be taken after an incident of security breaches. (10 marks)
- 2) State and explain five methods for authentication purposes. (15 marks)

THE END

