Chhetri Academy

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GCSE COMPUTER SCIENCE

3.2

Edexcel 1CP2 | Specification point 3.2.3

The importance of developing robust software and methods of identifying vulnerabilities (audit trails,...

Untiered

Past paper question booklet

1	2022	Untiered
question groups	available papers	tier

Before you begin

1. Show working and use units where appropriate.
2. Use extra paper if you need more space.
3. Print at actual size (100%) for measurement questions.

Name _____ **Date** _____

Whole questions are retained for context; some parts cover other points. Legacy sources are labelled.

2 Computers

(a) Some low-level programming languages use mnemonics.

(i) State the purpose of a mnemonic.

(1)

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.....

(ii) State the type of low-level programming language that uses mnemonics.

(1)

.....

(iii) Mnemonics are one characteristic of some low-level languages.
Describe **one other** characteristic of a low-level language.

(2)

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(iv) State the name of the high-level programming language translator that executes a line of code immediately after translating it.

(1)

.....

(b) State the **two** items held in RAM according to the von Neumann architecture.

(2)

1 .....

2 .....

(c) Data can be stored in different ways.

(i) Describe how data is stored on optical media.

(2)

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(ii) State the type of secondary storage that stores data as electric charges.

(1)

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(d) An embedded computer system is part of a larger machine.

State **two** characteristics of embedded systems that make them different from general purpose computers.

(2)

1 .....

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2 .....

.....

(e) Identify **two** reasons for using data compression.

(2)

- ☒ **A** Reduces data transfer times
- ☒ **B** Reduces disk fragmentation
- ☒ **C** Reduces required storage space
- ☒ **D** Reduces the chance of data being hacked
- ☒ **E** Reduces the need for error detection and correction

(f) Robust software must be free from vulnerabilities before it is released to users. Programming bugs are one type of vulnerability.

State **two other** types of vulnerability.

(2)

1 .....

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2 .....

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(g) Some users are given administrator privileges.

Explain **one** way an operating system allows an administrator to manage users.

(2)

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(Total for Question 2 = 18 marks)