**General Integrated Science**

**UNIT 2**

**Task – Extended Response – Zooming Into Evidence**

**Weighting 7.5 % (Part 1 and 2)**

**Conditions**

Time for the task: 50 min

Notes are not allowed and must be handed in prior to commencing.

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| Notes | /40 | /40 |
| Test | /30 | /60 |
| Final |  | /100 |

## **Criminal Investigation research assignment**

**Part 2:** In-class validation ( **/ 36 marks) (60% weighting)**

You are a detective who is in charge of solving two crimes.

The first case involved a large mansion in the expensive suburb of Peppermint Grove. Police attended a burglary where several pieces of valuable jewellery and a priceless museum item were taken; luckily no one was home. The burglar had snuck around the side of the home, through a well maintained garden and broken a glass window in the back door to gain access. Although the burglar bypassed the alarm, it appeared to be an inexperienced job as they left a lot of evidence behind.

1. You know that the first things that occur when investigators arrive at a crime scene are the most important.
   1. Describe what steps a crime scene investigator would take in the first 15 minutes of arriving at a crime scene. (3 marks)

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* 1. State 3 basic types of crime scene recording methods that would be used.

(3 marks)

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* 1. When photographing a crime scene, what important information should also be included with the photograph? (2 marks)

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* 1. Explain why this level of detail must be included when the photograph is taken.

(2 marks)

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1. Fingerprints were found where the burglar broke the window and on the wooden dressing table in the bedroom where the jewellery was hidden.
   1. Describe one method you could use to develop and collect the prints. (3 marks)

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* 1. With so many fingerprints at the crime scene, explain how a crime scene investigator would decide which ones to collect. (2 marks)

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* 1. The fingerprints appear to be an exact match to the neighbour Bill. Can you assume Bill was the burglar? Justify your answer with logical reasoning. (2 marks)

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1. The crime scene investigator also found several additional pieces of “trace evidence” at the burglary that they could use to find the criminal.
   1. Choosing one type of evidence other than fingerprints, explain in detail how that trace evidence could be collected and analysed. (3 marks)

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The next case is a little more interesting because it involves a body found in suspicious circumstances. The body is lying inside a small apartment in front of the couch in the lounge room with the TV still on. Furniture had been upturned and items were broken on the floor in the living areas, indicating there was a struggle. Curiously, the visible wounds couldn’t explain the lack of blood in the lounge, however there was blood spatter on the walls in the kitchen. On a further sweep of the house, drug use equipment had been found in the bedroom.

1. What is one thing a crime scene analyst is not responsible for at a crime scene?

(1 mark)

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1. DNA is extremely important in building a successful court case.
   1. List four examples of DNA evidence that may have been found at the crime scene.

(2 marks)

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* 1. Discuss how an investigator could use the blood droplets and spatter to build a picture of what happened at the crime scene. (4 marks)

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1. In both cases described, many footprints were found at each crime scene. Discuss what information a footprint can tell a crime scene investigator, AND how they determine which imprints are useful. (3 marks)

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