



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018**

COURSE NAME : FUNDAMENTALS OF FORENSIC SCIENCE
COURSE CODE : DAU10102
PROGRAMME CODE : 1 DAU
EXAMINATION DATE : JUNE/ JULY 2018
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER ANY 4 (FOUR) QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** (a) There are seven S's rules in crime scene investigation. List and explain all. (14 marks)
- (b) Chain of custody is an important element in handling evidence. Explain and give the important of this process. (3 marks)
- (c) List and sketch all crime scene search pattern. (8 marks)
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- Q2** (a) A woman was murdered in a small wooden house located in a jungle and 5 km away from road. The almost naked women body was found in the middle of the house. From the first glance of the body show that this is sexual harassment related and murder case. Few item was found in the house and along the pathways that are potentially related to the case. The items that are found in the house are bloody knife, cigarette buds and sprinkle of pink powder. One dirty and wet woman shirt are also found at the river near the house.
- (i) List **three (3)** physical evidence and **three (3)** trace evidence that may be found at the case location. (6 marks)
- (ii) Explain the appropriate way to package of each evidence. (6 marks)
- (b) (i) Explain about evidence handling safety. (2 marks)
- (ii) List and give the function of each personal protective equipment (PPE) that a forensics personnel should wear to find evidence at an after-burning case location. (6 marks)
- (c) Some PPE are reusable. Give an example of reusable PPE and explain the procedure to decontamination used PPE. (5 marks)

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- Q3** (a) (i) Describe forensics entomology. (2 marks)
- (ii) Explain job scope of a forensics entomologist. (3 marks)
- (b) Fingerprints are unique and become one of the important evidence in most of the forensics cases.
- (i) Describe the formation of fingerprints which relate to creation of latent prints on contact surfaces. (3 marks)
- (ii) Explain the statement below:
'The individual of a fingerprints is not determined by its general shape or patterns'. (2 marks)
- (iii) List and draw **three (3)** basic ridge characteristics of fingerprints. (9 marks)
- (c) Blood Pattern Analysis (BPA) is one of area in forensics case investigation. List **six (6)** output that can be get from BPA. (6 marks)
- Q4** (a) Identification of drugs may be qualitative or quantitative. Describe the meaning of qualitative or quantitative identification. (4 marks)
- (b) Explain how the following test is being performed
- (i) Color Test. (2 marks)
- (ii) Microcrystalline Test. (4 marks)
- (iii) Thin Layer Chromatography (TLC). (5 marks)
- (c) Compare UV-Visible Spectrophotometry, Infrared Spectrophotometry and Mass Spectrometry in terms of result analysis. (10 marks)

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- Q5** (a) Point out the limitation of Forensic Analysis of Fire Debris. (7 marks)
- (b) Describes the following terms
- (i) Accelerants. (4 marks)
 - (ii) Incendiary Devices (2 marks)
 - (iii) Requirements for combustion (7 marks)
- (c) Compare burning and explosion (5 marks)
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- Q6** (a) (i) List **six (6)** methods that can be used to identify and compare fibers (6 marks)
- (ii) Describe each methods list in **Q6 (a)**. (12 marks)
- (b) A signature from ten years ago will be different from one today where this fact can be used to fix the date of a document or a forgery. Analyse these phenomena. (2 marks)
- (c) Describe **two (2)** methods used by forensic document examiners. (5 marks)

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- END OF QUESTIONS -