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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023**

COURSE NAME : FIRE PROTECTION & SECURITY SYSTEM

COURSE CODE : BNB 31603

PROGRAMME CODE : BNB

EXAMINATION DATE : JULY/AUGUST 2023

DURATION : 3 HOURS

- INSTRUCTIONS
1. ANSWER ALL QUESTIONS.
 2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
 3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

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- Q1** (a) There are eight (8) parts of the Fire Services Act was enacted in 1988, explain **THREE (3)** of them. (6 marks)
- (b) For effective fire protection, building constructions must be able to support their structural loads during a fire, contain the spread of smoke and fire gases, and prevent excessive heat flow for a reasonable time. With the aid of illustrations, select **THREE (3)** suitable fire protection techniques for steel beams. (12 marks)
- (c) The effect of fire from inside buildings on exterior structure members can be reduced by distance or by flame-shields. Analyze how steel cladding can deflect heat and flames from the burning buildings. (7 marks)
- Q2** (a) Give the definition of fire safety audit and explain its objectives. (5 marks)
- (b) You are the building manager or facility manager who has been assigned to carry out work related to the fire audit in the building. Prepare a report on the results of the audit and each process must be clearly explained according to the standards that have been set. (20 marks)
- Q3** (a) Classify the types of security and alarm systems commonly used in buildings. Describe the key components of each system and their functions. (16 marks)
- (b) Compare and explain the advantages and disadvantages of wired and wireless security systems. In what situations would you recommend using one over the other. (9 marks)

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- Q4** (a) Give definition of the telecommunication network. (5 marks)
- (b) Telecommunications are a means of electronic transmission of information over a distance. Explain **FIVE (5)** elements in the communication process. (15 marks)
- (c) Identify **FIVE (5)** technologies that are used/based on satellite applications. (5 marks)

- END OF QUESTIONS -

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