



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2015/2016**

COURSE NAME : BUILDING AUTOMATION &
CONTROL SYSTEM

COURSE CODE : BNB 40603

PROGRAMME : 4BNB

EXAMINATION DATE : DECEMBER 2015/JANUARY 2016

DURATION : 2 HOURS 30 MINUTES

INSTRUCTION : ANSWER ALL QUESTIONS

THIS PAPER CONSIST OF **THREE (3)** PAGES

Q1 “Have potentially offered for highly productive and responsible environments that utilise integrated technology to deliver high quality experiences for building user” is fairly defined the meaning of intelligent building.

(a) Give definition of intelligent building. (3 marks)

(b) State **Four (4)** features of it. (7 marks)

(c) Briefly explain the importance for a client to invest in the construction of intelligent building. (7 marks)

(d) Describe Building Automation System (BAS) core function. Differentiate between a building which is built after year 2000 compared with older ones. (8 marks)

Q2 (a) Define the following terminology from a typical cable-type hoistway:

- (i) the car and hoistway shaft
- (ii) penthouse and pit
- (iii) electric/traction
- (iv) plunger jack

(8 marks)

(b) Primarily discuss the reason for safety while designing a building elevator. (4 marks)

(c) Using your own sketch, illustrate a section through a typical cable-type hoistway. (7 marks)

(d) Explain the difference between hydraulic and cable-type elevators. (6 marks)

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- Q3** (a) Security systems consist of everything from a simple burglar alarm to a full central alarm system.
- (i) Explain how it works in office and commercial building.
 - (ii) In your opinion, why alternative alarms system are sometimes provided in critical applications system.
- (12 marks)
- (b) With suitable sketches, show a schematic diagram of a telephone system.
- (8 marks)
- (c) An integrated electronic security system can include all or some of detecting devices. Discover the detecting system devices.
- (5 marks)
- Q4** (a) State clearly the purpose of an electronic security system in a building and first to consider while designing for building security .
- (5 marks)
- (b) Simply defined the subject of signal system encompasses that consists of **Three (3)** main elements.
- (8marks)
- (c) Produce the meaning of these symbols ▼ and ■.
- (2 marks)
- (d) Buildings with sleeping residents or in unoccupied spaces are more appropriate to place with fire and smoke detectors monitor automatically. Critically explains how this system works in case of emergency.
- (10 marks)

-END OF QUESTION-

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