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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(TAKE HOME)
SEMESTER II
SESSION 2019/2020**

COURSE NAME : APPLICATION OF HVAC
STANDARD FOR COMMERCIAL
BUILDINGS
COURSE CODE : BBZ 10304
PROGRAMME CODE : BBZ
EXAMINATION DATE : JULY 2020
DURATION : 2 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS.

TERBUKA

THIS QUESTION PAPER CONSISTS OF **TWO (2)** PAGES

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- Q1** (a) Define building envelope. (2 marks)
- (b) A design criterion for building envelope known as the overall thermal transfer value (OTTV) has been adopted. Justify **THREE (3)** the objective of OTTV. (6 marks)
- (c) Describe **TWO (2)** purposes of ANSI/ASHRAE/IES Standard 100 Energy Efficiency in Existing Buildings. (4 marks)
- (d) One of office building need to upgrade the Green Building Index (GBI) from silver to platinum. As a building manager, propose your planning for upgrading the office building. Consider **SIX (6)** main points of GBI. (12 marks)
- Q2** (a) State **TWO (2)** advantages and disadvantages of Flat S and drive transverse in ductwork. (4 marks)
- (b) Identify **THREE (3)** information required for duct construction. (6 marks)
- (c) Elements of duct assembly are sheet, reinforcement, seams and joints. Explain **THREE (3)** criteria must be considered for duct assembly and its elements. (6 marks)
- (d) A ducting system has been installed for lecture hall at Universiti Tun Hussein Onn Malaysia (Pagoh Campus). Construct your planning to perform testing and commissioning (T&C) for the ducting system. (10 marks)

-END OF QUESTIONS-