



UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2013/2014**

COURSE NAME : SUSTAINABLE CONSTRUCTION
COURSE CODE : BPF 44103
PROGRAMME : 4 BPC
EXAMINATION DATE : DECEMBER 2013 / JANUARY 2014
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER **FOUR (4)** QUESTIONS ONLY

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

- Q1** A Green building focuses on increasing the efficiency of resource use – energy, water, and materials – while reducing building impact on human health and the environment during the building’s lifecycle, through better siting, design, construction, operation, maintenance, and removal.

Relate the contributions of **TWO (2)** key criteria of Green Building Index (GBI) in GBI performance.

(25 marks)

- Q2** The Green Building Index (GBI) has been promulgated by Malaysian Architect Association and the Association of Consulting Engineers Malaysia (ACEM). Since its inception in 2009, it has been applied on a voluntary basis by developers and alike for residential and commercial buildings. Recently it has also been extended to the manufacturing buildings. The Malaysian government has shown its support through many incentives for the implementation of GBI.

Show **FOUR (4)** constraints to implement GBI in Malaysia.

(25 marks)

- Q3** Occupational Safety and Health Act (1994) (OSHA 1994) provides the legislative framework to promote, stimulate and encourage high standards of safety and health at work. The aim is to promote safety and health awareness and establish effective safety organization and performance through self regulation schemes designed to suit the particular industry or organization.

Choose **FOUR (4)** main elements that mandatory in this act toward ‘self regulation’ among organization.

(25 marks)

- Q4** The principles of Life Cycle Design provide important guidelines for the selection of building materials. Each step of the manufacturing process, from gathering raw materials, manufacturing, distribution, and installation, to ultimate reuse or disposal, is examined for its environmental impact.

Apply **FOUR (4)** features of sustainable building material.

(25 marks)

Q5 Urban noise pollution produces direct and cumulative adverse health effects by degrading residential, social, working, and learning environments with corresponding real (economic) and intangible (well-being) losses. The World Health Organization has documented seven categories of adverse health effects of noise pollution on humans.

Relate **FIVE (5)** from seven (7) categories of adverse health effects of noise pollution on humans.

(25 marks)

-END OF QUESTION-