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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

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

COURSE NAME : CONSTRUCTION INDUSTRY
& BUILDING TECHNOLOGY

COURSE CODE : BPE 13502

PROGRAMME CODE : BPD

EXAMINATION DATE : JUNE / JULY 2018

DURATION : 2 HOURS

INSTRUCTION : ANSWERS ALL QUESTIONS

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

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Q1 The Malaysian construction industry is classified into four sectors namely, residential buildings, non-residential buildings, civil engineering and the special trade sectors.

(a) Differentiate between general construction and special trade work in the construction industry.

(5 marks)

(b) Explain the following stakeholders' roles in the construction process:

(i) Professional consultant

(ii) Government agencies

(iii) Nominated sub-contractor

(iv) Domestic sub-contractor

(20 marks)

Q2 (a) Construction drawing is the general term used for drawings that form part of the production (construction works) information that is incorporated into tender documentation and then the contract documents.

Explain **THREE (3)** types of drawing that are used in the construction work.

(15 marks)

(b) Explain the followings;

(i) Soil testing (Soil Investigation)

(ii) Site plan (layout) design

(10 marks)

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- Q3** Concrete is a composite material composed of fine and coarse aggregates bonded together with a fluid cement (cement paste) that hardens over time, whereas mortar is a workable paste, which is a mixture of sand, cement or lime, and water used to bind building blocks such as stones, bricks, and concrete masonry units.
- (a) State **TWO (2)** mistakes normally done by a bricklayer when erecting brick walls. (4 marks)
- (b) State **TWO (2)** purposes of concrete compaction. (4 marks)
- (c) Describe, with a reasonable illustration, a method to prevent dampness and moisture to ground floor. (7 marks)
- (d) Justify **TWO (2)** problems associated with hardened concrete and their possible causes (10 marks)
- Q4** (a) Industrialized Building System (IBS) has been widely used for building construction in Malaysia due to several factors.
- (i) List **FIVE (5)** benefits of IBS in residential building projects. (5 marks)
- (ii) Give **TWO (2)** disadvantages of IBS. (4 marks)
- (b) A green building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment.
- (i) Explain **TWO (2)** basic elements of green building. (6 marks)
- (ii) Discuss the disadvantages of adopting green building elements for a 20-year old office building. (10 marks)

-END OF QUESTIONS-

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