

CONFIDENTIAL



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : CONSTRUCTION ENGINEERING
COURSE CODE : DAC 32003
PROGRAMME CODE : DAA
EXAMINATION DATE : JUNE / JULY 2019
DURATION : 2 HOURS 30 MINUTE
INSTRUCTION : ANSWERS **FIVE (5)** QUESTIONS ONLY

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

CONFIDENTIAL

- Q1** (a) Describe **four (4)** stage of process should be taken while the pre-construction activities and during the construction. (8 marks)
- (b) Explain **four (4)** activities for site preparation in the construction work. (8 marks)
- (c) List **four (4)** the types of drawing used in the construction engineering. (4 marks)
- Q2** (a) Discuss **five (5)** items how generally the type of foundation is selected while the construction design proposes? (5 marks)
- (b) Describe briefly **three (3)** differences between deep foundation and shallow foundation. (5 marks)
- (c) The Soil Investigation data at site A has been determined as low bearing capacity. With appropriate justifications and illustration, discuss the consideration of using the raft foundation for bungalow house at filling earthwork. (10 marks)
- Q3** (a) With the aid of diagram, explain the meaning of superstructure. (6 marks)
- (b) Explain **four (4)** advantages of using the aluminum formwork system compared to conventional formwork. (8 marks)
- (c) State **three (3)** main materials of formwork used at construction site and example of each material. (6 marks)
- Q4** (a) There is some importance of structure joints. Relate **two (2)** importance towards the construction of a building. (4 marks)
- (b) Illustrate and explain the following concrete joints:
(i) Expansion joint. (6 marks)
(ii) Construction Joints (6 marks)
- (c) Name **four (4)** types of connection joints for precast item. (4 marks)

- Q5** (a) Scaffolding is a temporary work that are required during the construction stage. State **three (3)** functions of scaffolding. (3 marks)
- (b) Discuss the safety precautions when installing the scaffolding. (8 marks)
- (c) State **four (4)** benefit when using the machinery in construction activities. (4 marks)
- (d) There are two types of bulldozers and angle dozers. Known as, crawler and wheel tracks. Explain the difference of usage between crawler tracks and wheel tracks. (5 marks)
- Q6** (a) Road is a hard surface built for vehicles to travel along. Explain the process in constructing a road. (6 marks)
- (b) List **six (6)** general components in bridge construction. (6 marks)
- (c) State the function of manhole. (3 marks)
- (d) Water tank was designed to store and supply sufficient water especially during peak hours. With the aid of diagram, list the main component in water tank. (5 marks)

-END OF QUESTIONS -