

CONFIDENTIAL



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2019/2020**

COURSE NAME : BUILDING CONSTRUCTION
TECHNOLOGY
COURSE CODE : BNC 31103
PROGRAMME CODE : BNC
EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS.

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

TERBUKA

CONFIDENTIAL

- Q1** (a) With the aids of a sketch, discuss the main component of a formwork for a wall construction. (8 marks)
- (b) Classify the **TWO (2)** category of ties and discuss the main function of formwork ties. (5 marks)
- (c) Assuming that you have been instructed to supervise the demolition, dismantling and structural alteration of a large size steel formwork systems, explain the measures that can be taken to ensure the work will be carried out safely. (12 marks)
- Q2** (a) Classify **FOUR (4)** types of foundation system used in construction. (4 marks)
- (b) Explain **THREE (3)** reasons why pile load test should be the conducted in the construction of building in Malaysia. (6 marks)
- (c) Excessive excavate the soil may damage the existing utility in soil. Explain the necessary precautions at construction site as to avoid damage during excavation works stage. (15 marks)
- Q3** (a) Name the staircase element in **Figure Q3 (a)** and state the minimum value for element A, C and D. (8 marks)
- (b) Give **THREE (3)** types of fan used in mechanical ventilation. (3 marks)

TERBUKA

- (c) Differentiate Propeller fans and Centrifugal fans. (9 marks)
- (d) Sketch the following item:
(i) Casement window
(ii) Single-hung window
(iii) Pivoting window.
(iv) Four panel door
(v) French door (5 marks)
- Q4** (a) Prepare the detail method for making plaster work on the brickwall surface. (9 marks)
- (b) Briefly explain the wind effect to the following type of building ventilation and provide example for each type:
(i) Ventilation through roof
(ii) Ventilation through window (4 marks)
- (c) Differentiate a single phase system and three phase system for electrical system in a building. (8 marks)
- (d) Explain your role as a civil technology engineer for electrical installation work in a building construction project. (4 marks)

- END OF QUESTIONS -

TERBUKA

FINAL EXAMINATION

SEMESTER/SESSION : SEM I 2019/2020

PROGRAMME CODE : BNC

COURSE NAME : BUILDING CONSTRUCTION TECHNOLOGY

COURSE CODE : BNC 31103

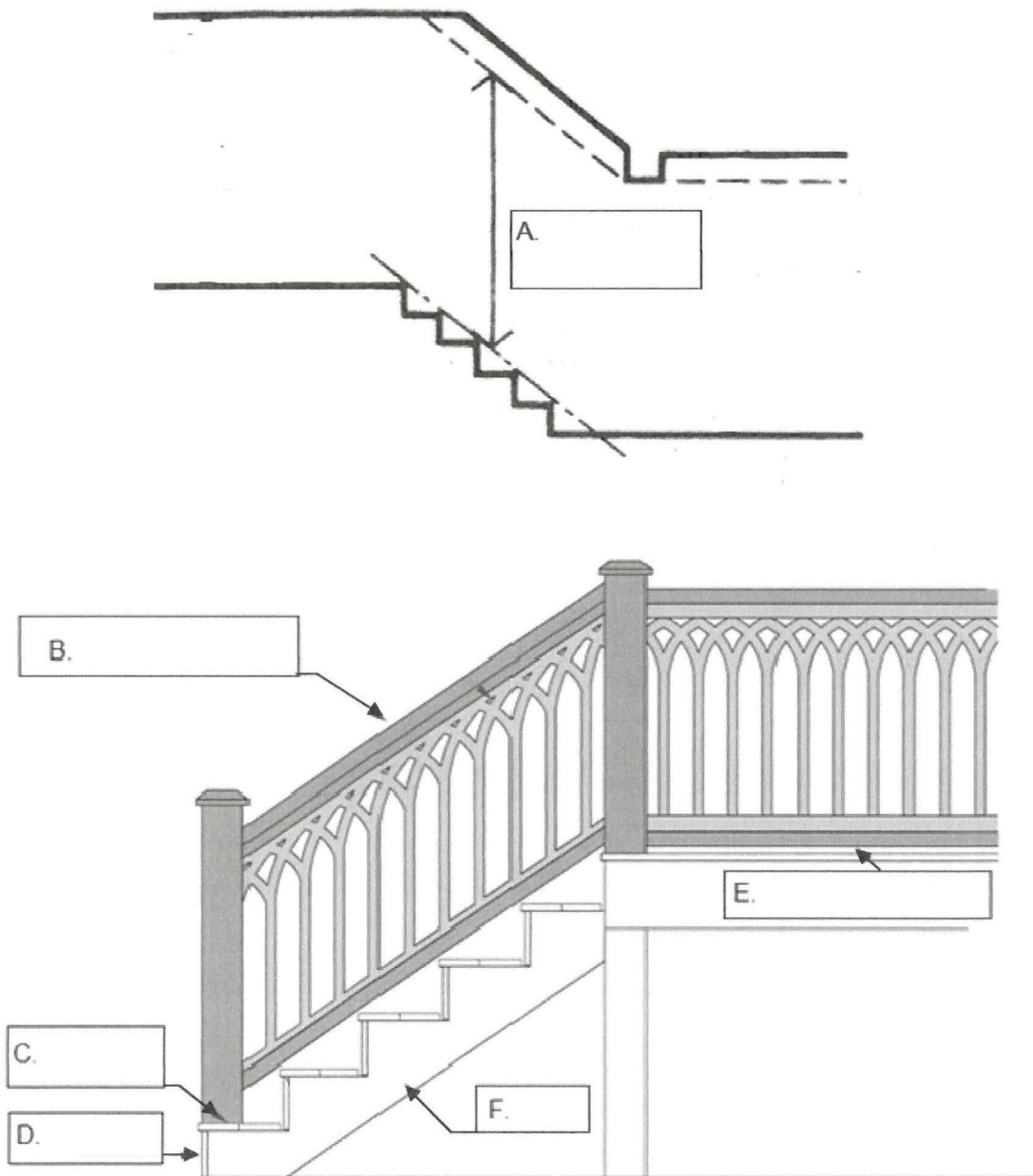


Figure Q3 (a)

TERBUKA