



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017**

COURSE NAME : BUILDING CONSTRUCTION
TECHNOLOGY
COURSE CODE : BNC 31103
PROGRAMME : 3 BNC
EXAMINATION DATE : DECEMBER 2016/
JANUARY 2017
DURATION : 3 HOURS
INSTRUCTION : ANSWER **FOUR (4)** QUESTIONS
ONLY.

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

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- Q1** (a) Prior to the implementation of concrete work, state **FIVE (5)** preparation that you need to perform as a technology engineer at construction site. (5 marks)
- (b) Discuss **THREE (3)** causes of flash flooding / mud by the construction area. (12 marks)
- (c) Quality and economy are the **TWO (2)** factors that are taken into account in building projects either for new buildings, modified, upgraded or demolished. Discuss these factors in detail. (8 marks)
- Q2** (a) State **THREE (3)** the use of mangrove wood in the construction industry. (3 marks)
- (b) Define the terms:-
- (i) Stump.
 - (ii) Load test.
 - (iii) Pile Cap.
 - (iv) Lean concrete.
 - (v) Damp prove membrane (DPC).
- (10 marks)
- (c) Mr. Rahman has an intermediate terrace house unit. He would like to add a number of rooms, which required the additional level to his house. With the aid of sketch, propose the type of foundation by considering all the fundamentals and justification needed. If necessary include too the assumption involves in your proposal. (12 marks)
- Q3** (a) State **THREE (3)** types of fan used in mechanical ventilation. (3 marks)
- (b) Briefly explain the wind effect to the following type of building ventilation and give example for each type:
- (i) Ventilation through wall
 - (ii) Ventilation through roof
 - (iii) Ventilation through window
- (6 marks)

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- (c) Discuss natural ventilation in Malay traditional house. (5 marks)
- (d) Explain your role as a civil technology engineer for electrical installation work in building construction project. (5 marks)
- (e) Explain and sketch the position of service pipe and distribution pipe. (6 marks)
- Q4** (a) State **FIVE (5)** advantages and disadvantages of using Industrial Building System. (5 marks)
- (b) Sketch the location of the following element:
(i) Shear wall and party wall.
(ii) Main Beam, Secondary Beam and Tie Beam.
(iii) Riser and tread for staircase.
(iv) Rafter, ridge and ceiling joist. (10 marks)
- (c) With the aid of sketch, distinguish between load bearing wall and non-load bearing wall. (10 marks)
- Q5** (a) Sketch the following item:
(i) Casement window
(ii) Single-hung window
(iii) Pivoting window.
(iv) Four panel door
(v) French door (5 marks)
- (b) Prepare the detail method for making plaster work on the brickwall surface. (10 marks)
- (c) Describe the installation and fixing of floor tiles and wall tiles. (10 marks)

- END OF QUESTION -

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