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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

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

COURSE NAME : CONSTRUCTION TECHNOLOGY I
COURSE CODE : BPD 13103
PROGRAMME CODE : BPC
EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

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Q1 Figure Q1 shows a location plan for a new building for MIDA Sentral that will be constructed in a congested area of Kuala Lumpur city.

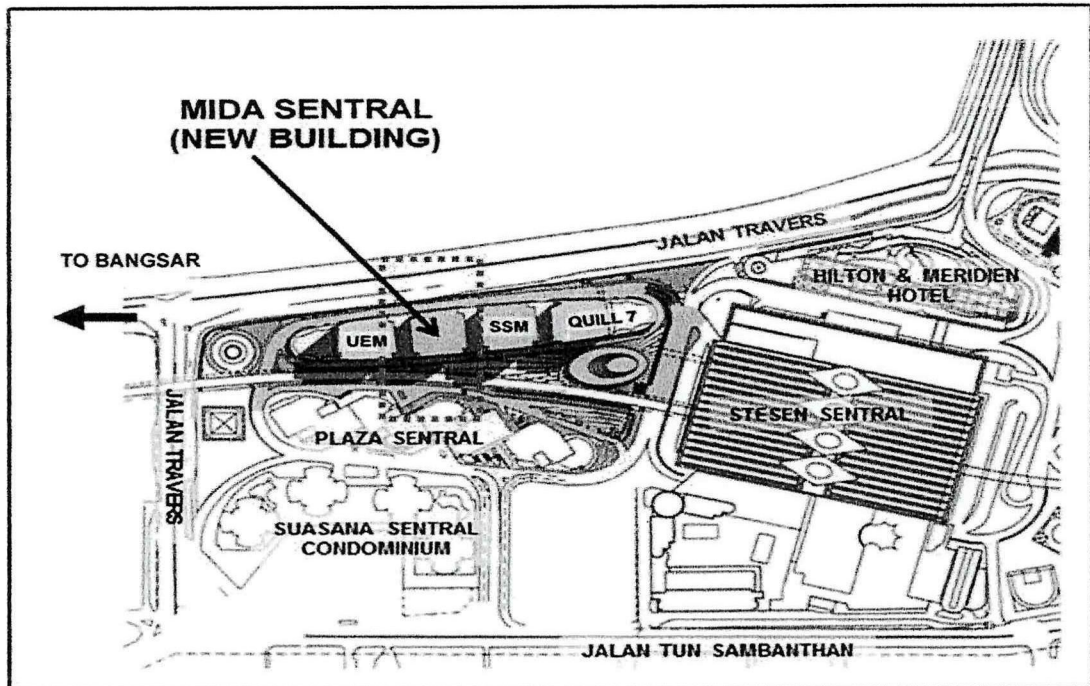


Figure Q1: Location plan of a proposed building

- (a) Explain site investigation processes for the project. (8 marks)
- (b) Sketch a suitable site layout for the Mida Sentral project. (10 marks)
- (c) Outline with the aid of sketches, the complete construction processes of 15m deep friction pile for the proposed building. (16 marks)

- Q2**
- (a) Describe **TWO (2)** importances of a drainage system in a construction project site. (4 marks)
 - (b) Differentiate with the aid of sketches, **THREE (3)** differences between friction pile and end-bearing pile. (6 marks)
 - (c) Outline with the aid of sketches, the complete construction process of a concrete building frame for a 25-storey building. (15 marks)

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- Q3**
- (a) List **FIVE (5)** types of brickwork bonding. (5 marks)
 - (b) Differentiate between a solid and a suspension floor. (10 marks)
 - (c) Illustrate the complete installation process of a 600mm x 1200mm casement window at a 4000mm x 5000mm brick wall. (10 marks)
- Q4** The roof is a structure located on the highest part of the building and used to protect the occupants from rain and heat. The characteristics, types, and shapes of the roof are depending on the purpose of the constructed building.
- (a) List **FIVE (5)** types of a building roof. (5 marks)
 - (b) Discuss **FIVE (5)** factors that influencing the choice of roof type. (10 marks)

-END OF QUESTIONS-