

**FINAL
ALTERNATIVE ASSESSMENT**

(COVER PAGE)

Session : August 2020

Programme : Diploma in Quantity Surveying (DQS)

Course : EGK1118: Construction Technology 1

Date of Examination : 15 December 2020 (Tuesday)

Time : 8.00am – 10.30am Reading Time : Nil

Duration : 2 Hours 30 Minutes

Special Instructions :

This paper consists of **FOUR (4)** questions. Answer **ALL** questions in the answer booklet provided.
Each question carries 25 marks.

Material permitted : Nil

Materials provided : Nil

Examiner(s) : Mashithah Abdullah Bayanoeddin

Chief Moderator : Azila Adros

This paper consists of 3 printed pages, including the cover page

DIPLOMA IN QUANTITY SURVEYING PROGRAMME (DQS)
EGK1118: CONSTRUCTION TECHNOLOGY1
FINAL ALTERNATIVE ASSESSMENT: AUGUST 2020 SESSION

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QUESTION 1



Figure 1

A factory manager observed a series of irregular cracks forming on the external walls of the factory building as shown in Figure 1. He also noticed gaps appearing and getting wider around few windows and doors.

- a) List the preliminary steps to be taken as precautionary measures to minimize further cracks formed on the external walls (5 marks)
- b) With the aid of sketches, explain types and methods of remedy available to rectify the condition of the factory. (20 marks)

QUESTION 2

Your neighbour decided to upgrade her existing house fence wall from chain link to using either rubble wall, ashlar or concrete block wall. She seeks your professional advice. Distinguish between the **THREE (3)** options, give recommendations and state your reasons.

(25 marks)

QUESTION 3

- a) A developer plans to build 6 storey office building with 3 storey basement car park in flood prone area in Kuala Lumpur. The site is situated near existing buildings. Identify technique of dealing with groundwater exclusion. Proposed most suitable technique and state your reason. (5 marks)
- b) Describe and suggest **TWO (2)** suitable methods of groundwater exclusion from the technique selected in (a). (15 marks)
- c) Using line diagrams, identify categories of groundwater controls. (5 marks)

QUESTION 4

Meera Sahib Sdn Bhd plans to build a two- storey factory that can accommodate both an office and production area. The build-up area is 850m² and 18,000m² respectively. The consultants proposed to use displacement piles for both office and production area.

- a) Discuss factors that consultants need to consider when deciding on displacement piles as the foundation for the factory. (15 marks)
- b) List **FOUR (4)** methods of driving the displacement piles into the ground. (5 marks)
- c) List **FIVE (5)** options of displacement piles that can be used for the two-storey factory. (5 marks)

-THE END-

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