UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023

COURSE NAME	:	CONSTRUCTION CONTRACT AND PROCUREMENT
COURSE CODE	:	BNP 21203
PROGRAMME CODE	:	BNA / BNB / BNC
EXAMINATION DATE	:	JULY/AUGUST 2023
DURATION	:	3 HOURS
INSTRUCTIONS	:	1. ANSWER **ALL** QUESTIONS 2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK.** 3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

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Q1　(a)　Differentiate between table tender documents, offer documents, and contract documents.

(6 marks)

(b)　**Figure Q1 (b)** shows the contractual and functional relationship in the procurement system in Malaysia. Determine the procurement method used according to the contractual arrangement.

(9 marks)

(c)　If Sime Darby Property Berhad plans to build a shopping complex in Pagoh, Johor, by using environmental friendly high technology, provide recommendations and justifications for the type of tender appropriate for the project.

(10 marks)

Q2　(a)　The Superintendent Officer (S.O.) is a person who has the authority to control a project to meet the requirements of the contract terms. Figure out **FIVE (5)** responsibilities of the S.O. to manage the project according to the budget and time frame set by the owner.

(10 marks)

(b)　Pembinaan Proli Sdn. Bhd. commenced construction of a shop lot in Pagoh, Johor, on 12 March 2023. The duration of the contract is 12 months. However, the construction company failed to complete the project within the stipulated time. As the company's project engineer that is involved in this project, you must examine **FIVE (5)** reasons that can be used to apply for an extended time.

(10 marks)

(c)　Calculate the project completion date after approval of the deadline extension from **Q2 (b)**.

(5 marks)

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Q3 (a) Calculate the price of 1m³ in-situ concrete work with grade 30 (1:1:2) mixed and placed manually on the ground beam of the building based on information below.

Information:
Cost of cement	= RM 20.00/bag (50 kg)
Cost of sand	= RM 50.00/m³
Cost of aggregate	= RM 60.00/m³
Labour output for mixing	= 2 hours/m³
Labour output for carrying and placing	= 5 hours/m³
Rate of shrinkage and compaction	= 35%
Wastage	= 5%
Labour cost (mixing)	= RM 70/8 hours
Labour cost (carrying and placing)	= RM 75/8 hours
Profit and overhead	= 15%

(10 marks)

(b) In a construction project, cost estimation plays an important role at almost every stage of construction. Identify **THREE (3)** importance of project cost estimating.

(6 marks)

(c) The project estimation cost of a building is determined at the initial stage of the construction process which is based on the agreed design and site layout plan. Explain the methods used to estimate the project's cost.

(9 marks)

Q4 (a) Construct an example of a bill of quantities for piling work.

(10 marks)

(b) Based on **Figure Q4(b)(i), Q4(b)(ii), Q4(b)(iii),** by using dimensional paper, calculate the quantities for the following items. For all structures, concrete grade 30 is used, the concrete cover is 50 mm, the thickness of the topsoil is 150 mm, and the transport distance is 30 m. All units are in mm.

(i) Excavation for topsoil

(5 marks)

(ii) Concrete for pad footing

(2 marks)

(iii) Main bar for the pad footing.

(5 marks)

(iv) Mold for grade beam A, B, C (1-2)

(3 marks)

– END OF QUESTIONS –
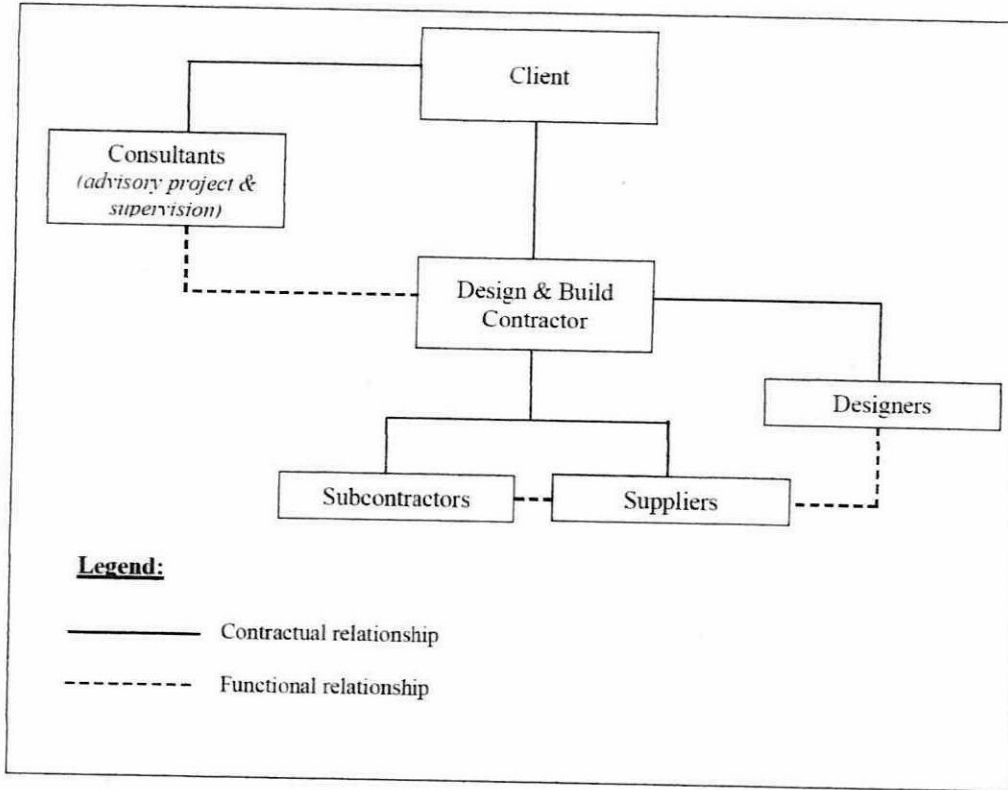
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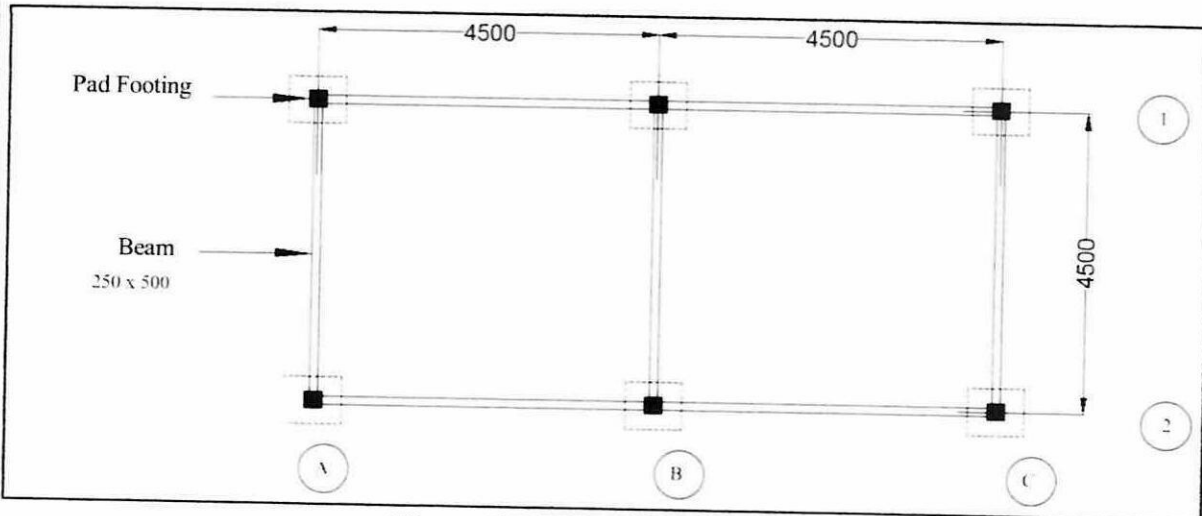
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Figure Q1 (b) : Contractual and Functional Relationship in Procurement

Figure Q4(b)(i) : Floor Key Plan

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Figure Q4(b)(ii) : Detail Pad Footing

Note:
Stump bend = 100mm

Figure Q4(b)(iii) : Detail Grade Beam

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