



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2009/2010**

SUBJECT NAME : CONTRACT AND ESTIMATION
SUBJECT CODE : BFC 2022
COURSE : 2 BFF
EXAMINATION DATE : APRIL 2010
DURATION : 2 1/2 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS PAPER CONSIST OF EIGHT (8) PAGES

- Q1**
- (a) Discuss how corruption can occur in constructions pre-tender stage. (5 marks)
 - (b) Explain **three (3)** important elements in construction. (6 marks)
 - (c) Describe **two (2)** advantages and **two (2)** disadvantages of selected tender. (4 marks)
 - (d) Explain the difference between fixed price contract with contract that are based on drawing and bill of quantity. (5 marks)
- Q2**
- (a) Superintending Officer (SO) and SO representatives are two important post in any project implementation stage. Describe their responsibilities. (4 marks)
 - (b) Explain the basic rules and procedures during preparation of progress payment. (10 marks)
 - (c) Explain the meaning of the following terms:-
 - (i) Force Majeure.
 - (ii) Performance Bond.
 - (iii) Liquidated and Ascertained Damage.(6 marks)
- Q3**
- (a) Explain the definition of contract. (2 marks)
 - (b) Describe the meaning of the following terms and list **two (2)** example of its application:-
 - (i) Prime Cost Sum.
 - (ii) Contract Provisional Sum.(8 marks)
 - (c) Explain **five (5)** items that are parts of a Tender Document. (10 marks)

Q4 Based on the detail shown in Figure S4(a) and Figure S4(b), and related information given on Table S4, Calculate the price rate for excavation for one (1) cubic meter of earth using manual method (hand excavation). The complete stage of works include removing earth from ground, backfilling, compaction and removing excess earth from job site. (20 marks)

Q5 Figure S4(a) dan Figure S4(b) shows a drawing of a building structure, calculate:

- (a) Volume of concrete for pad footings, stumps and ground beams. (5 marks)
- (b) Formwork for pad footings, stumps and ground beams. (5 marks)
- (c) Reinforcement for pad footings, stumps and ground beams (in kilogram). (5 marks)
- (d) Link for stumps and ground beams (in kilogram). (5 marks)

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TRANSLATION IN MALAY / TERJEMAHAN DALAM BAHASA MELAYU

- S1**
- (a) Bincangkan bagaimana rasuah boleh berlaku di peringkat pra-tender. (5 markah)
 - (b) Huraikan **tiga (3)** elemen penting di dalam sesuatu pembinaan. (6 markah)
 - (c) Jelaskan **dua (2)** kebaikan dan keburukan tender terhad/terpilih. (4 markah)
 - (d) Berikan perbezaan diantara kontrak harga tetap dan kontrak berdasarkan lukisan dan senarai kuantiti. (5 markah)
- S2**
- (a) Pegawai Penguasa (PP) dan wakil P.P merupakan jawatan terpenting di dalam pelaksanaan sesuatu projek. Jelaskan tanggungjawab mereka. (4 markah)
 - (b) Huraikan peraturan asas dan prosedur penyediaan bayaran kemajuan. (10 markah)
 - (c) Jelaskan mengenai perkara-perkara berikut:-
 - (i) *Force Majeure*.
 - (ii) Bon Pelaksanaan.
 - (iii) Gantirugi Kerana Taksiap.(6 markah)
- S3**
- (a) Jelaskan definisi kontrak. (2 markah)
 - (b) Jelaskan mengenai perkara berikut dan berikan **dua (2)** contoh setiap satu:-
 - (i) Wang Kos Prima.
 - (ii) Wang Peruntukan Sementara.(8 markah)
 - (c) Huraikan dengan jelas **lima (5)** kandungan Dokumen Tender. (10 markah)

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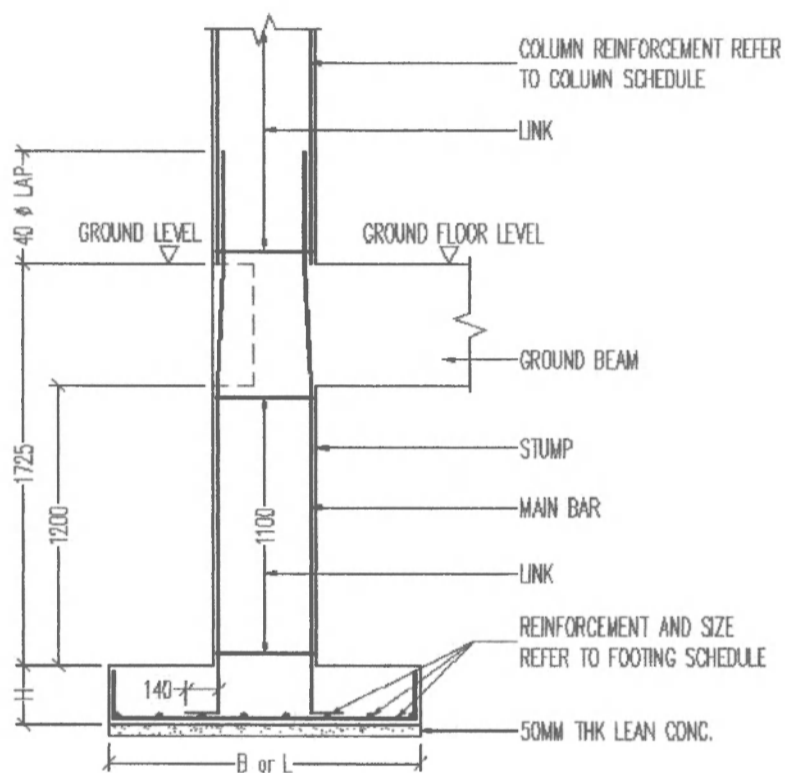
- S4** Berdasarkan perincian yang ditunjukkan dalam Rajah S4(a) dan Rajah S4(b) serta maklumat berkaitan di dalam Jadual S4, kirakan kadar harga untuk kerja pengorekan satu (1) meter padu tanah menggunakan kaedah manual (menggunakan tangan). Kerja-kerja yang perlu diambilkira termasuklah kerja-kerja penggalian, meratakan permukaan, penimbunan semula, pemadatan dan kerja membuang tanah lebihan keluar daripada tapak bina.
- (20 markah)
- S5** Rajah S4(a) dan Rajah S4(b) menunjukkan lukisan binaan bagi satu struktur bangunan. Kirakan:
- (a) Isipadu konkrit bagi asas pad, tunggul tiang dan rasuk tanah. (5 markah)
- (b) Acuan bagi asas pad, tunggul tiang dan rasuk tanah. (5 markah)
- (c) Tetulang utama di dalam asas pad, tunggul tiang dan rasuk tanah (dalam unit kilogram). (5 markah)
- (d) Pengikat tetulang utama di dalam tunggul tiang dan rasuk tanah (dalam unit kilogram). (5 markah)

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PAD FOOTING MARK	PAD FOOTING DIMENSIONS			REINFORCEMENT		
	B. mm	L. mm	H. mm	XDirBar	YDirBar	TIES
F1	1350	1350	250	T12-150	T12-150	-

PAD FOUNDATION REINFORCEMENT SCHEDULE



CONVERSION TABLE FOR ROUND BAR (BS 4449:1997)

Nominal Size (mm)	Cross Sectional Area (mm ²)	Mass Per Meter Run (kg)
06	28.3	0.222
08	50.3	0.395
10	78.5	0.616
12	113.1	0.888
16	201.1	1.579
20	314.2	2.466
25	490.9	3.854
32	804.2	6.313

Notes : All pad foundation, stump & ground beam – similar concrete cover (50mm)

Figure/Rajah S4(a)

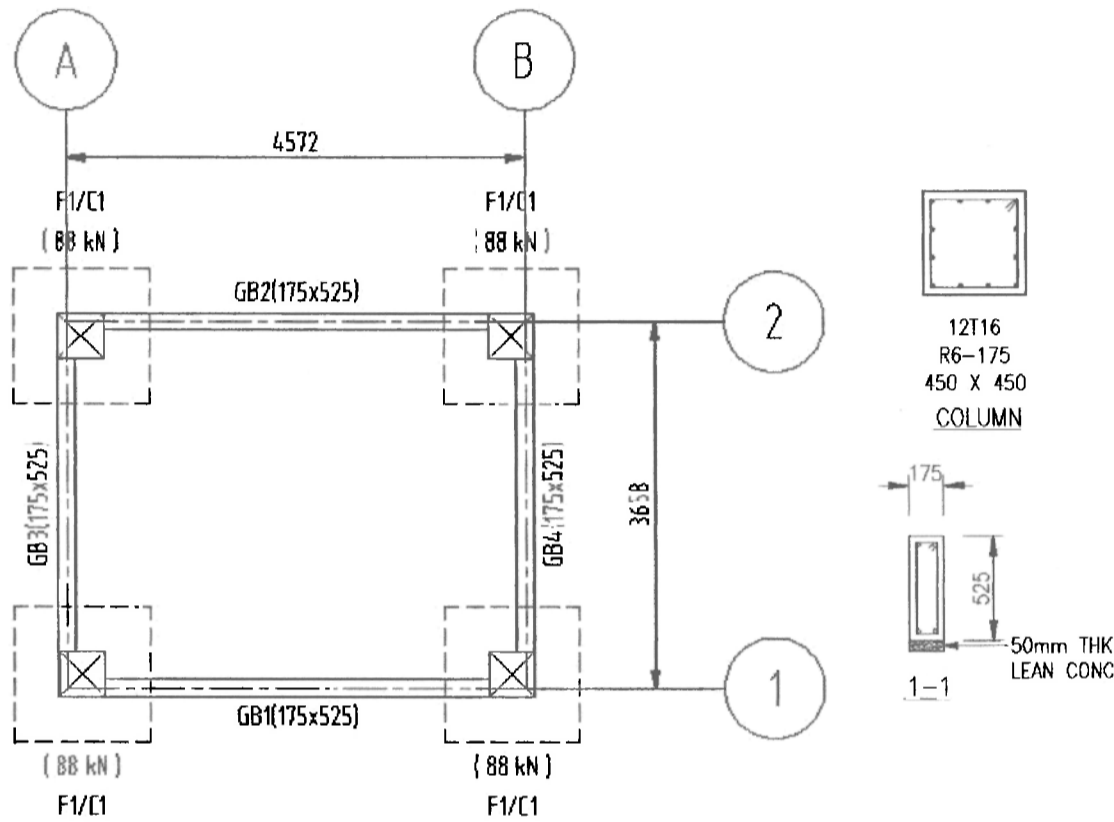
FINAL EXAMINATION

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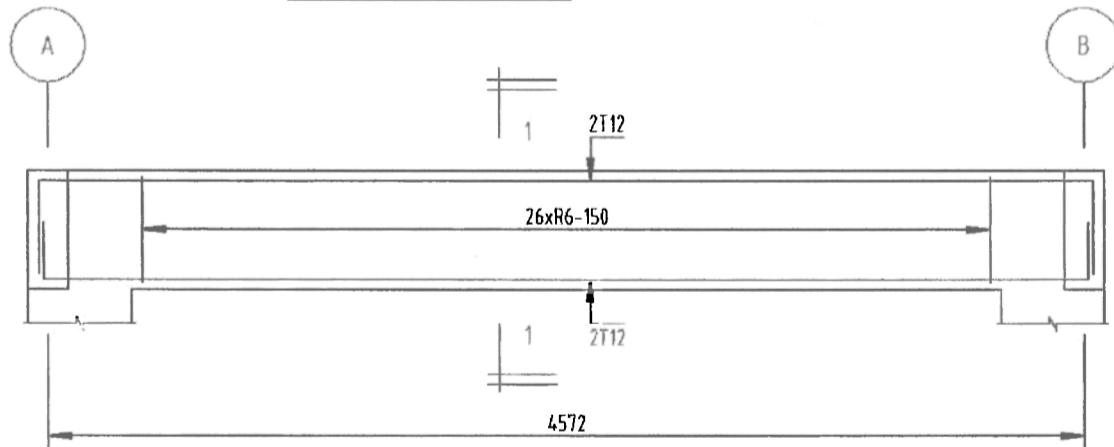
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GROUND FLOOR PLAN



GB1 (175 X 525)

GB2, GB3 & GB4 (175 X 525) - SIMILAR REINF.

Figure/Rajah S4(b)

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ITEM	KADAR
Gaji pekerja (8 jam bekerja/hari)	RM 45.00/hari
Penggalian tanah tidak melebihi kedalaman 1.500 m	1.55 jam/m ³
Penggalian tanah melebihi kedalaman 1.500 m tetapi tidak melebihi 3.00 m	1.75 jam/m ³
Meratakan permukaan tanah di bawah asas pad	0.15 jam/m ²
Menimbus dan memadatkan tanah	0.5 jam/m ³
Membawa tanah yang digali keluar dari tapak bina	1.2 jam/m ³
Pengembangan tanah biasa	20 %
Keuntungan	15 %

Table/Jadual S4 – Maklumat bagi Kerja Pengorekan