

Angka Giliran: _____

UNIVERSITI SAINS MALAYSIA

First Semester Examination
2013/2014 Academic Session

December 2013 / January 2014

RMK 231 – Building and Civil Engineering Quantities
(Kuantiti Bangunan dan Kejuruteraan Awam)

Duration: 3 hours
(Masa: 3 jam)

Write your index number on first page of this question paper. Please submit this question paper with your answer paper. Without submission of the question and answer papers, you are considered do not sit in this examination.

Tulis angka giliran anda pada mukasurat pertama kertas soalan ini. Sila hantar kertas soalan ini bersama-sama kertas jawapan. Tanpa hantaran kertas jawapan bersama kertas soalan, anda dikira tidak menduduki peperiksaan ini.

Please check that this examination paper consists of SEVENTEEN pages of printed material before you begin the examination.

Sila pastikan bahawa kertas peperiksaan ini mengandungi TUJUHBELAS muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

Students are allowed to answer all questions in English OR in Bahasa Malaysia.

Pelajar dibenarkan menjawab semua soalan dalam Bahasa Inggeris ATAU Bahasa Malaysia.

Answer **FOUR** questions only. **SECTION A** is **COMPULSORY** and answer **ONE** questions from **SECTION B**.

*Jawab **EMPAT** soalan sahaja. Soalan **BAHAGIAN A** adalah **WAJIB** dan Jawab **SATU** soalan lain dari **BAHAGIAN B**.*

**SECTION A
BAHAGIAN A**

Should you need to make assumptions in measuring the items, please state them clearly in your answer scripts.

Sekiranya anda perlu membuat jangkaan semasa menyediakan item-item ini, sila nyatakan jangkaan-jangkaan tersebut dengan jelas di dalam kertas jawapan anda.

1. In accordance with the attached drawings (Drawing 1 - 9) measure the following items of work:

Berpandukan kepada lukisan-lukisan (Lukisan 1 – 9) yang dilampirkan, ukurkan item-item kerja yang berikut:

- (a) Work Below Lower Floor Finish – Excavation, Lean Concrete, mesh reinforcement, Hardcore, Subgrade and Vibrated Reinforced Concrete (including Formwork and Reinforcement) for Raft Foundation items only.

Kerja di Bawah Kemasan Lantai Bawah – Penggalian, Konkrit Alas, Pengukuhan Jejaring, Lapisan Keras, Subgred dan Konkrit Bertetulang yang Digetarkan (termasuk Acuan dan Tetulang) untuk item Asas Rakit sahaja.

(40 marks/markah)

2. Measure the works for roof structure in accordance to the Appendix A, B and C.

Ukurkan kerja-kerja struktur bumbung berdasarkan Lampiran A, B dan C.

(20 marks/markah)

3. In accordance with Drawing DR2, measure:

Berdasarkan kepada Lukisan DR2, ukurkan:

(a) Drainage works from the holding tank to manhole MH5 (refer the location plan).

Kerja-kerja perparitan dari tangki pengumpul ke lurang MH5 (rujuk pelan lokasi).

(b) Manhole MH2 only.

Lurang MH2 sahaja.

(30 marks/markah)

SECTION B BAHAGIAN B

Answer **ONE (1)** question from this section.

Jawab **SATU (1)** soalan daripada bahagian ini.

Should you need to make assumptions in measuring the items, please state them clearly in your answer scripts.

Sekiranya anda perlu membuat jangkaan-jangkaan semasa menyediakan item-item ini, sila nyatakan jangkaan-jangkaan tersebut dengan jelas di dalam kertas jawapan anda.

4. In accordance with the attached drawings (Drawing 1 - 9) measure the following items of work:

Berpandukan kepada lukisan-lukisan (Lukisan 1 – 9) yang dilampirkan, ukurkan item-item kerja yang berikut:

(a) Vibrated Reinforced Concrete (including formwork) for Column items only.

Konkrit Bertetulang yang Digetarkan (termasuk acuan) untuk item tiang sahaja.

(5 marks/markah)

- (b) Floor Finishes (Laid on Floor Slab) including nosing item only.

Kemasan Lantai (Dihamparkan di atas papak lantai) termasuk item "nosing" sahaja.

(5 marks/markah)

5. In accordance with the attached drawings (Drawing 1 - 9) measure the following items of work:

Berpandukan kepada lukisan-lukisan (Lukisan 1 – 9) yang dilampirkan, ukurkan item-item kerja yang berikut:

- (a) Brickwall items only

Item dinding bata sahaja.

(5 marks/markah)

- (b) Wall Plastering item only

Item Lepaan Dinding sahaja

(5 marks/markah)

