



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015**

COURSE NAME : CONSTRUCTION TECHNOLOGY I
COURSE CODE : BPD 13103
PROGRAMME : 1 BPC
EXAMINATION DATE : JUNE 2015 / JULY 2015
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

Q1 A new hotel, which include shopping complex area will be constructed next month and the building details as in **Table Q1**.

Table Q1: Hotel Construction Information

Description	Details	Additional Information
Storey	30	Level 1 to 5 – shopping complex Level 6 to 30 – hotel room
Total floor area	50,000m ²	Equal area size
Soil type	Sand	Soft and weak Hard stratum 20m deep
Room type A	80 units	Level 6 to 20
Room type B	60 units	Level 21 to 28
Room type B	20 units	Level 29 & 30
Self-service laundry room	2 units	Level 10 & 15
Conference room	5 units	Level 6 & 7
Swimming pool	1 unit	Level 10
Fitness room	2 units	Level 15 & 28
Building Frame	Reinforced concrete	Gred 30
Floor (suspended)	Reinforced concrete	Gred 30
Roof (pitch)	Timber trusses	Concrete tile roof finishes
Total cost	RM 80 million	Design & Build

Outline with the aid of sketches, the complete construction process of the following hotel structures:

- (a) Foundation (13 marks)
- (b) Frame (13 marks)
- (c) Floor (14 marks)

- Q2**
- (a) Describe with the aid of sketches, the differences between door and window functions. (6 marks)
 - (b) Illustrate the complete installation process of a 1200mm x 1200mm aluminum casement window at brickwall. (14 marks)

- Q3** Roof is a structure located on the highest part of the building and used to protect the occupants from rain and heat. The characteristics of the roof are depending on the purpose of the constructed building.
- (a) Discuss **FIVE (5)** factors that influencing the choice of roof type. (10 marks)
- (b) Explain with the aid of sketches, the complete construction process of a pitch roof. (10 marks)
- Q4** Finishing work is one of the final building construction activities and its main purpose is to add aesthetic value to the building. The types of finishes are depending on the building function and project cost allocation.
- (a) List **THREE (3)** types of floor finishes. (3 marks)
- (b) Explain the complete painting process on the external brickwall. (7 marks)
- Q5**
- (a) State **FOUR (4)** main reasons for maintaining floor finishes. (4 marks)
- (b) Describe **THREE (3)** construction features for floor. (6 marks)

-END OF QUESTIONS-