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Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2017/2018**

**COURSE NAME : CONSTRUCTION TECHNOLOGY I**  
**COURSE CODE : BPD 13103**  
**PROGRAMME CODE : BPC**  
**EXAMINATION DATE : DECEMBER 2017 / JANUARY 2018**  
**DURATION : 2 HOURS 30 MINUTES**  
**INSTRUCTION : ANSWER ALL QUESTIONS**

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

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Universiti Tun Hussein Onn Malaysia  
Johor Bahru  
Johor Darul Makmur

**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 <sup>2</sup>	Equal area size
Soil type	Sand	Soft and weak Hard stratum at 40m depth
Room type A	80 units	Level 6 to 20
Room type B	60 units	Level 21 to 28
Room type C	20 units	Level 29 & 30
Self-service laundry room	2 units	Level 10 & 15
Conference room	5 units	Level 6 & 7
Swimming pool	2 unit	Level 10
Fitness room	2 units	Level 15 & 28
Building Frame	Reinforced concrete	Grade 30
Floor (suspended)	Reinforced concrete	Grade 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** 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)

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- Q3** (a) Differentiate with the aid of sketches, the functions of door and window. (10 marks)
- (b) Illustrate the complete installation process of a 1200mm x 1200mm aluminium casement window at 4000mm x 5000mm brick wall. (10 marks)
- Q4** (a) List **THREE (3)** types of floor finishes. (3 marks)
- (b) Explain the complete painting process on the external brick wall of a double storey bungalow. (7 marks)
- (c) Discuss with the aid of sketches, the complete installation process of a 200mm x 200mm wall tile for a 4000mm x 5000mm brick wall area. (10 marks)

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**-END OF QUESTIONS-**