UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2014/2015

COURSE NAME	: SUSTAINABLE CONSTRUCTION MANAGEMENT
COURSE CODE	: BNP 20703
PROGRAMME	: BNA/BNB/BNC
EXAMINATION DATE	: DECEMBER 2014 / JANUARY 2015
DURATION	: 2 1/2 HOURS
INSTRUCTION	: ANSWER ANY **FOUR (4)** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1 Substructure is the most important element of the building which stands and distribute load to the ground.

(a) Define the definition of substructure in construction.

(3 marks)

(b) Discuss briefly the construction process of pad footing for house.

(5 marks)

(c) Explain briefly type of pile foundation in construction by using a suitable sketch.

(5 marks)

(d) Differentiate **SIX (6)** advantages and disadvantages of using RC Concrete Pile in construction.

(12 marks)

Q2 Superstructure is the structure held above the earth.

(a) List **THREE (3)** type of loading load on building.

(3 marks)

(b) Briefly Explain :
(i) Suspended Slab
(ii) Non suspended Slab
Sketch the structure of each structure

(12 marks)

(c) With the aid of diagram, explain the distribution of load for 2 storey house.

(4 marks)

(d) As a design engineer at the Heroes Venture Consultant Company, you are assigned to design the multiple storey building at the United Kingdom. Base on your design and engineering knowledge; prepare the design criteria need to be considered in designing the building.

(6 marks)

Q3 An important step in a career of engineering technologist is an organization..

(a) Draw and explain the organizations charts as below ;
(i) Project Organizations
(ii) Functions Organization
(iii) Matrix Organizations

(6 marks)

(b) Explain in detail **THREE (3)** differences between Project Organizations, Functions Organization and Matrix Organizations respectively.

(9 marks)

(c) Describe **FOUR (4)** types of Project Organizations.

(10 marks)

Q4 Sustainable Construction Management had Guideline, features and element.

(a) List **FIVE (5)** technical guidelines necessary for sustainable construction.
(5 marks)

(b) Briefly discuss with sketches about rainwater harvesting. In your discussion relate how villagers in Malaysia with no piped water supply have used this method for generations as a source for drinking water.
(8 marks)

(c)Inteprate briefly about the **FOUR (4)** elements of a green building.

(12 marks)

Q5 Time and cost controlling are important during a project planning..

(a) Discuss about construction project controlling procedure.
(10 marks)

(b) In your opinion, Generalize why every construction company need to have an effective supervision?
(5 marks)

(c) Explain the steps to develop S-curve.
Develop the Progress S-curve which are consists 6 activities, duration in month and the total project cost is RM20, 100.00 as data below.

Activity	Duration (Month)	Cost (RM)	Progress Ratio (%)	Work Progress Ratio (%)
A	1	1600	8	10.1
B	2	2000	10	5
C	3	6000	30	12.9
D	2	4900	24	16.9
E	2	3600	18	31
F	1	2000	10	24.1

(10 marks)

END OF QUESTION