UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2014/2015

COURSE NAME	:	PRODUCT DEVELOPMENT
COURSE CODE	:	BPC 32403
PROGRAMME	:	3 BPB
EXAMINATION DATE	:	DECEMBER 2014/JANUARY 2015
DURATION	:	2 HOURS AND 30 MINUTES
INSTRUCTIONS	:	ANSWER **ALL** QUESTIONS

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

Q1 (a) Identify **FIVE (5)** major steps in Pugh Concept Selection (PCS).

(5 marks)

(b) Assess 3 automobiles that you might consider purchasing by using the PCS method for.

(15 marks)

Q2 (a) Explain **SEVEN (7)** concept communication methods that your marketing team applied to promote your company's new ergonomic office chair to potential customers.

(14 marks)

(b) Calculate the estimated quantity (Q) that the ergonomic chairs could possibly be sold in the Peninsular Malaysia market, given purchasing probability is at a value of 0.18.

(6 marks)

Q3 One well known product architecture in modern industrial design is termed as "modular architecture", as shown in **Figure Q3**.
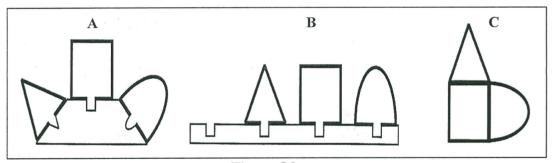

Figure Q3

(a) Define modular architecture A, B and C.

(6 marks)

(b) State **FOUR (4)** motives for product change that affects product architecture.

(4 marks)

(c) Sketch a schematic diagram for a mechanical pencil, in a given graph paper.

(10 marks)

Q4   (a)   In 2003, Motorola launched a product development effort that led to a very successful flip-style mobile phone models, known as the StarTAC and later emerged as the RAZR. This is an example of an excellent industrial design in recent decade.

Describe **THREE (3)** succes factors of this Motorola mobile phone.

(6 marks)

(b)   Outline the development of Industrial Design (ID) from the early 1930s until new millenium year 2000.

(10 marks)

(c)   Describe how industrial designs of BMW and Rolex establish their corporate identities.

(4 marks)

Q5   (a)   Explain the concept of Design for Environment (DFE).

(6 marks)

(b)   Describe **THREE (3)** environmental impacts resulting from the conventional manufacturing industries.

(6 marks)

(c)   Explain how reducing the number of parts in a product, might reduce production costs.

(8 marks)

- END OF QUESTION -