UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015

COURSE NAME	:	SOFTWARE ENGINEERING PRINCIPLES
COURSE CODE	:	BIE 10103
PROGRAMME	:	1 BIP
EXAMINATION DATE	:	JUNE 2015 / JULY 2015
DURATION	:	2 HOURS AND 30 MINUTES
INSTRUCTION	:	ANSWER **ALL** QUESTIONS.

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

Q1 (a)   Discuss the meaning of software process.

(5 marks)

(b)   Draw a diagram to illustrate phases in the Waterfall model.

(5 marks)

(c)   Differentiate between computer software and computer program.

(4 marks)

(d)   Explain **THREE (3)** advantages of using prototype software development model instead of waterfall model.

(6 marks)

Q2   Draw the context diagram based on the scenario in Figure **Q2**.

A supermarket needs to develop software to encourage regular customers. For this, the customer needs to supply his name, address, telephone number and driving license number. A customer is assigned a unique customer number (CN) by the computer. When a customer makes a purchase, the value and the detail of the purchase is credited against his CN by sales clerk. At the end of each year, sales clerk will prepare sales report to the manager. The manager then will generate surprise gifts to 10 customers who have made the highest purchase. In addition, a 22 carat gold coin is given to every customer who has made a purchase over RM.10,000. The entries are reset on the last day of the year.

FIGURE Q2   (15 marks)

Q3 (a)   Explain the meaning of software testing.

(4 marks)

(b)   List of various level of software testing.

(4 marks)

(c)   Differentiate between validation and verification.

(4 marks)

(d)   Describe **TWO (2)** differences between black box testing and white-box testing.

(8 marks)

Q4 (a) Discuss the importance of software maintenance.

(4 marks)

(b) Demonstrate **FOUR (4)** problems in software maintenance. Support each answer with example.

(8 marks)

(c) Explain **THREE (3)** limitations of software testing.

(6 marks)

- END OF QUESTION-

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