

CONFIDENTIAL



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2015/2016**

COURSE NAME : SYSTEM ANALYSIS AND DESIGN
COURSE CODE : BIC 21003
PROGRAMME : 2 BIS / 2 BIP / 2 BIW / 2 BIM
EXAMINATION DATE : DECEMBER 2015 / JANUARY 2016
DURATION : 3 HOURS
INSTRUCTION : ANSWER **ALL** QUESTIONS.

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

CONFIDENTIAL

- Q1** (a) Define **FIVE (5)** methods in preparing a questionnaire. (5 marks)
- (b) Outline **FOUR (4)** situations in which Joint Application Development (JAD) would be ideal. (4marks)
- (c) Answer **Q1(c)(i)-Q1(c)(iii)** based on Figure **Q1(c)**.

As part of your system analysis project to update the automated accounting functions for Nikon Sdn. Bhd., a maker of digital cameras, you will interview MrZahmi, the chief accountant.

(Source: Kendall & Kendall, 2014)

FIGURE Q1(c)

- (i) Discuss an approach to set up an interview with Mr. Zahmi. (5 marks)
- (ii) Write **THREE (3)** open-ended questions to Mr. Zahmi in prior to the interview session. (6 marks)
- Q2** (a) Discuss the needs to create Entity Relationships Diagram (ERD) during system development. (4 marks)

- (b) Develop a data model using ERD based on Figure Q2(b). (16 marks)

CahayaJati Sdn Bhd is a book shop that does sell different types of reading materials. The manager of the company has used a database for their ordering system to enable customers' orders their books. The tables and their design requirements are as follows:

- The company sells a number of different books. These books are group into Category ID, where each category may have at least one or many books. These books were identified by Book ID, whereas the other additional attributes are title, author, price and publisher.
- Customers submit order for books. The identifier for order is Order ID. Each order should have order date, books ordered by customer and total price for the order. One customer may submit any number of orders. However customers may need not submit ANY orders. The identifier of customer is Customer ID. Other information includes customer name, address, postcode and phone number.

FIGURE Q2(b)

- Q3** (a) Outline **FOUR (4)** primary functional components of a software application. (8 marks)
- (b) Explain **THREE (3)** major non-functional requirements that have influence on architecture design. (6 marks)
- (c) Suggest a design strategy to develop a system based on Figure Q3(c). Justify your answer. (6 marks)

Assume you are developing a new system for a multi-state chain of video stores. Each store will run a fairly standardized set of video store processes (cataloging video inventory, customer registration, video rentals, video returns, overdue fees, etc.). In addition, each store's system will be networked to the corporate offices for sales and expense reporting.

FIGURE Q3(c)

Q4 Answer Q4(a) -Q4(d) based on Figure Q4.

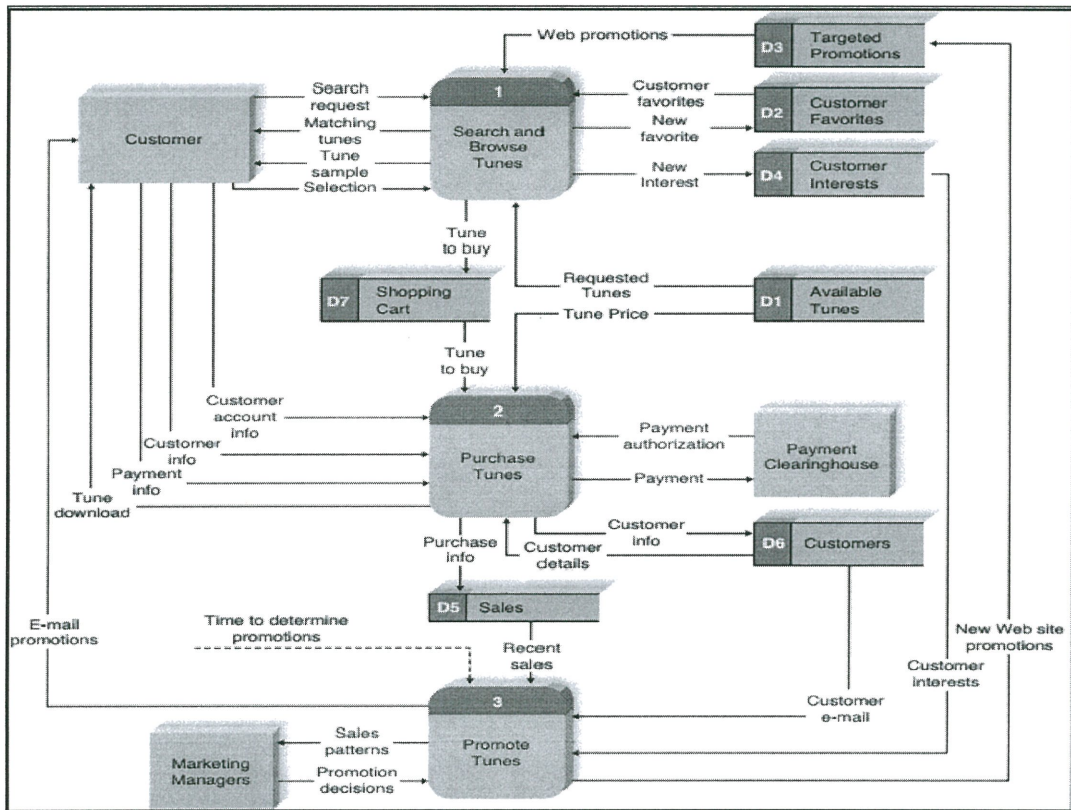


FIGURE Q4

- (a) Determine any error shown and make corrections. (4 marks)
- (b) Develop a context diagram. (10 marks)
- (c) Develop CRUD matrix for Process 1. (10 marks)
- (d) Develop a physical DFD for the DFD level 0. (16 marks)

- END OF QUESTION -