

**Universiti
Malaysia
PAHANG**

Engineering • Technology • Creativity

FACULTY OF COMPUTER SYSTEMS & SOFTWARE ENGINEERING

FINAL EXAMINATION

COURSE	:	SYSTEMS ANALYSIS & DESIGN
COURSE CODE	:	DCS1093
LECTURER	:	MAZLINA ABDUL MAJID
DATE	:	3 MAY 2011
DURATION	:	2 HOURS
SESSION/SEMESTER	:	SESSION 2010/2011 SEMESTER II
PROGRAMME CODE	:	DCS

INSTRUCTIONS TO CANDIDATE:

1. This question paper consists of **TWO (2)** sections. Answer **ALL** questions.
2. Write your answers in the answer booklet provided.
3. Answer **EACH** question on a new page.
4. All calculations and assumptions must be clearly shown.

EXAMINATION REQUIREMENTS:

NONE

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

This examination paper consists of **FOUR (4)** printed pages including front page.

SECTION A: STRUCTURED QUESTIONS [30 MARKS]**QUESTION 1**

There are several software development approaches available to structure, plan, and control the process of developing an information system such as Prototype, Joint Application Design (JAD), Agile Methodologies, Rapid Application Development (RAD) and Software Development Life Cycle (SDLC).

- (a) Give the definition of RAD and draw the RAD life cycle.

[6 Marks]

- (b) Explain what are the **FOUR (4)** necessary components of RAD?

[4 Marks]

QUESTION 2

Interviewing and listening is one of the primary ways for a system analyst to gather information regarding an information systems project.

- (a) Explain what is Interview Guide and give **TWO (2)** examples of documents that can be included in the Interview Guide?

[3 Marks]

- (b) Each question in an interview guide can include both verbal and non-verbal information. Differentiate between open-ended questions and close-ended questions.

[2 Marks]

- (c) Identify **FIVE (5)** guidelines for effective listening during an interview session.

[5 Marks]

QUESTION 3

Data flow diagram (DFD) is a physical process modeling which graphically represents the processes that capture, manipulate, store, and distribute data between a system and its environment and among system components.

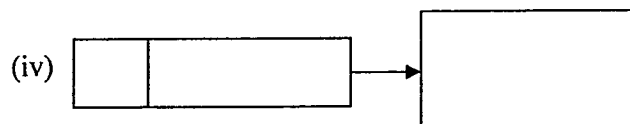
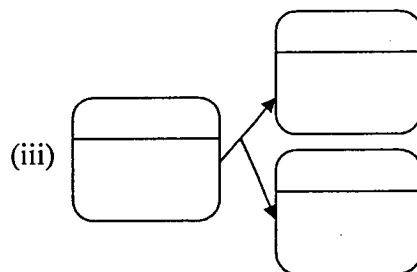
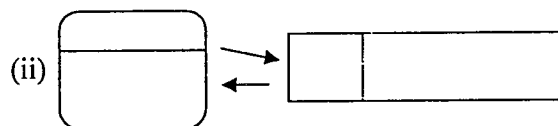
- (a) The development of DFD started with the development of context data flow diagram. What are the elements of an organizational system that shows in the context data flow diagram?

[3 Marks]

- (b) Calculating an employee's salary and an employee salary file are represented on the DFD as a process and a data store, respectively. Draw these DFD process and data store.

[3 Marks]

- (c) Revise and state whether each of the following drawings are correct or incorrect:



[4 Marks]

SECTION B: ESSAY QUESTION [30 MARKS]

AD Café wants to install a system to record customers' orders. When regular customers call AD Cafe on the phone, the AD Café staff asked for their phone numbers. When the phone number is typed into a computer, the history about the customers' orders consist of the name, address and last order date is automatically viewed on the screen. Once the new order is taken, the total price, including tax and delivery is calculated. The order is then given to the kitchen. Then, a receipt is printed. Occasionally, special offers coupons are also printed for customers to receive some discounts from the AD Cafe. A copy of the receipt and a coupon (if any) is given to the customers by the drivers making delivery. Weekly totals are kept for comparison with last year's performance.

- (a) Draw a use case diagram for the above situation.

[10 Marks]

- (b) Design a class diagram for the above situation.

[10 Marks]

- (c) Construct an activity diagram for the above situation.

[10 Marks]

END OF QUESTION PAPER