



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2017/2018**

COURSE NAME : SYSTEMS ANALYSIS AND DESIGN  
COURSE CODE : DAT 20203  
PROGRAMME : DAT  
EXAMINATION DATE : JUNE/JULY 2018  
DURATION : 2 HOURS AND 30 MINUTES  
INSTRUCTION : SECTION A: ANSWER ALL QUESTIONS  
SECTION B: ANSWER ONE (1)  
QUESTION ONLY

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

**SECTION A**

- Q1** (a) State **SIX (6)** types of information systems. (6 marks)
- (b) Describe the steps involved in making a Gantt chart. (6 marks)
- (c) Draw and label a personal computer as a system. (8 marks)
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- Q2** (a) State tangible and intangible benefits. (4 marks)
- (b) Describe the phases in the systems development life cycle. (8 marks)
- (c) Pine Valley Furniture manufactures a variety of high-quality wood furniture items. Since its beginnings in the early 1980s, the company's information systems have changed from manual-based information systems to application-oriented systems to a recently implemented database approach. Pine Valley Furniture's new centralized database was developed in-house. The Pine Valley Furniture's Purchasing Fulfillment System is presented as an example of how a project is undertaken to solve a problem. Juanita Lopez works in the order department, and Chris Martin is a systems analyst. After contacting Chris about problems with the ordering process, Chris and Juanita produced a Systems Service Request.
- Produce a sample Systems Service Request. (8 marks)

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- Q3** (a) Describe the Economic Feasibility. (4 marks)
- (b) Assume you are put in charge of launching a new website for a local nonprofit organization. Consider both one-time and recurring costs.
- (i) Explain costs would you need to account for. (3 marks)
- (ii) List of expected costs and benefits for the project. (3 marks)
- (c) A new system is an investment in most situations, if the benefit is less than cost, then the system is not worth doing. Consider this situation, Maimon's Mart is a grocery shop in a small village. They are a couple of grocery shops there including Maimon's Mart. The mart is being handle by the owner and one staff. The number of customers coming to the mart is becoming lesser every month. The method of conducting their business is as follows; customer walks in to select their item and pay at the counter. If the item that they intend to buy is not available then they will inform the owner for new order that will be received in a week or two.
- (i) Explain the improvement that should be done in terms of technology that may boost Maimon's Mart business. (4 marks)
- (ii) Explain why the answer in **Q3 (c)(i)** was suggested. (4 marks)
- Q4** (a) Discuss the differences between a form and a report. (5 marks)
- (b) Using the design guidelines presented in the class, design the Delivery Customer Order Form for Hoosier Burger Company. (15 marks)

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**SECTION B**

**Q5** Projects, Inc. is an engineering firm with approximately 500 engineers that provide mechanical engineering assistance to organizations, which requires managing many documents. Projects, Inc. is known for its strong emphasis on change management and quality assurance procedures. The customer provides detailed information when requesting a document through a web portal. An engineer is assigned to write the first draft of the requested document. Upon completion, two peer engineers review the document to ensure that it is correct and meets the requirements. These reviewers may require changes or may approve the document as-is. The document is updated until the reviewers are satisfied with the quality of the document. The document is then sent to the customer for approval. The customer can require changes or accept the document. When the customer requires changes, an engineer is assigned to make the changes to the document. When those changes are made, two other engineers must review those changes. When those reviewers are satisfied with the changes, the document is sent back to the customer. This may happen through several iterations until the customer is satisfied with the document.

(a) Draw a context diagram.

(5 marks)

(b) Draw level-0 diagram.

(15 marks)

**Q6** Consider a mail order company that distributes CDs and tapes at discount prices to its members. When an order processing clerk receives an order form, she verifies that the sender is a member by checking the member file. If the sender is not a member, the clerk returns the order along with a membership application form. If the customer is a member, the clerk verifies the order item data by checking the item file. Then the clerk enters the order data and saves it to the daily orders file. At the same time the clerk also prints an invoice and shipping list for each order, which are forwarded to the order fulfillment department for processing there

(a) Draw a context diagram.

(5 marks)

(b) Draw level-0 diagram.

(15 marks)

**-END OF QUESTION -**

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