



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER I
SESSION 2020/2021**

COURSE NAME : SYSTEM ANALYSIS AND DESIGN
COURSE CODE : BIT 20103
PROGRAMME CODE : BIT
EXAMINATION DATE : JANUARY / FEBRUARY 2021
DURATION : 3 HOURS
INSTRUCTION : 1. ANSWER **ALL** QUESTIONS.
2. THE STUDENTS SHOULD
UPLOAD THE ANSWER
BOOKLET (PDF/WORD
FORMAT) WITHIN 30 MINUTES
AFTER EXAMINATION
PERIOD.

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

Q1 Answer **Q1 (a)** – **Q1 (b)** based on **FIGURE Q1**.

DamiaDanisha Resort has a pricing structure for vacationers in one of its three residence categories: the hotel, villas, and beach bungalows. The normal price is for staying in the hotel is RM 180. Beach bungalows have a 10% additional price and villas have a 15% additional price from hotel price. The final price includes a discount of 4% for returning customers. Further conditions apply to how close to capacity the resort is and whether the requested date is within one month from the current date. If the resort is 50% full and the time is within one month, there is a 12% discount. If the resort is 70% full and the time is within one month, there is a 6% discount. If the resort is 85% full and the time is within one month, there is a 4%

FIGURE Q1

- (a) Develop a decision table for DamiaDanisha Resort pricing structure. (8 marks)
- (b) Create a decision tree. (7 marks)
- Q2** (a) Discuss **ONE (1)** reason why consistency is important in interface design. (3 marks)
- (b) Draw **ONE (1)** example of inconsistency for login interface. (2 marks)

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- Q3** Design a complete fill in form interface for ordering skin care product based on **FIGURE Q3**.

Ameerah started Clean and Glow personal shopper service for skin care product six month ago. She wants to expand her business by using online system. She hopes that the system will help her customer submits an order with customer information, skin care information, quantity and total price for the order. Then the submitted order will be entered into the system and will be captured by her staff to be processed and delivered.

FIGURE Q3

(10 marks)

- Q4** Answer **Q4 (a)** – **Q4 (b)** based on **FIGURE Q4**.

Mawar Rindu Café wants to install a system to record orders for Baryani menu. When regular customers call on the phone, they are asked for their phone number. When the number is typed into a computer, the name, address, and last order date is automatically brought up on the screen. Once the order is taken, the total, including tax and delivery, is calculated. Then, the order is given to the cook. A receipt is printed. Occasionally, special offers are printed so the customer can get a discount. Drivers who make deliveries give customers a copy of the receipt and if any a coupon

FIGURE Q4

- (a) Develop context diagram for data flow diagram (DFD).

(10 marks)

- (b) Develop DFD level 0.

(15 marks)

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Q5 Answer **Q5 (a)** – **Q5 (b)** based on **FIGURE Q5**.

Book Glory Sdn Bhd is a company situated at Johor Bahru. Mr Yusof, owner of the company has decided to expand their branch to Batu Pahat, Mersing, Segamat and Kota Tinggi with specific branch ID. Each branch has four departments, and each department belongs to one branch. Each department has one or more employees and each employee works for one department. Each one of the employees may or may not have one or more child and each child belongs to one employee. Each employee may not or may not have employment history too.

FIGURE Q5

- (a) Draw an entity-relationship diagram based on the information provided in **Figure Q4**. All entity must include with suitable attributes. (15 marks)
- (b) Give and explain **ONE (1)** example from entity relationship diagram produced in **Q4(a)**.
- (i) Primary key (2 marks)
 - (ii) Foreign key (2 marks)
 - (iii) Candidate key (2 marks)
 - (iv) Composite attribute (2 marks)
 - (v) Multi valued attribute (2 marks)

- END OF QUESTION -