



INSTITUTE OF TECHNOLOGY TRALEE

Structured Analysis & Design STAGE II

SEMESTER 2 EXAMINATION 2008

External Examiner:

Internal Examiner:

Date:

Time:

Duration: 2 Hours

Instructions to candidates: Answer question 1 and 2 other questions

1. Easy Travel Inc. are in the business of arranging holidays for clients, and presently have a variety of holidays on offer. Each potential customer is interviewed by an experienced sales consultant who determines the customer's holiday requirements. The customer is assigned a unique customer number which is stored in the Customer File with the customers' personal details. The customer's holiday requirements are stored in the Customer Requirements File. The system allows customer details to be changed if required. It is also possible to print a list of customers for mail shots and marketing requirements, etc.

The sales consultant then advises the customer of possible alternative holidays. To do this, the consultant refers to data, which is held in the Hotel Location, Tours and Timetable files.

If the booking is not confirmed at the first consultation, the details are recorded in the Outstanding Booking file. Booking details may be changed at any time, prior to booking confirmation. Also, a booking may be cancelled at any time prior to booking confirmation. Once a booking is confirmed, the details are recorded in the Booking file. When an outstanding booking is confirmed, the details are removed from the Outstanding Booking file and recorded in the Booking file. The sales consultant will complete the booking on the customers behalf at which point a deposit must be paid by the customer and a booking confirmation document and travel itinerary are printed and sent to the customer.

Full payment for the holiday must be made not less than 30 days before departure date. Customer payment details are recorded in the Payments file, the booking is flagged 'Paid in Full' and tickets are printed, the details of which are recorded in the Ticket file. Tickets are held in the office until one week before departure.

Each Friday, the system identifies those customers who are required to make payment the following week and notification is printed and sent to the customer. Any customer who does not make payment by the required date is notified by letter and the booking details are removed from the Booking file and recorded in the Unpaid file. In this event, the customer loses any deposit paid.

- (a) Draw a hierarchy chart representing the functional components of the system. **(5 marks)**
- (b) Identify the external entities, data stores and processes required to implement the system described above. **(10 marks)**
- (c) Draw Level-0, Level-1 and level-2 DFD's for the above system. **(20 marks)**
Clearly label all processes, data stores and data flows.
- (d) Give a comprehensive listing of the **file structure** for the Customer File, Customer Requirements File and the Payments File. **(5 marks)**