

PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING
Department of Computer Engineering

Midterm Examination: Semester 1

Academic Year: 2004-2005

Date: 7th August, 2004

Time: 9.00 – 11.00 (2 hours)

Subject Number: 240-571

Room: R 300

Subject Title: Introduction to J2ME Programming

Lecturer: Aj. Andrew Davison

Exam Duration: 2 hours

This paper has 2 pages.

Authorized Materials:

- Writing instruments (e.g. pens, pencils).
- Books (e.g. dictionaries) and calculators are **not** permitted.

Instructions to Students:

- *Answer questions in English.* Perfect English is **not** required.
- Attempt all questions.
- Write your answers in an answer book.
- Start your answer to each question on a new page
- Clearly number your answers.
- Any unreadable parts will be considered wrong.
- When writing programs, use good layout, and short comments; marks will not be deducted for minor syntax errors.
- The marks for each part of a question are given in brackets (...).

Question 1

(30 marks; 30 minutes)

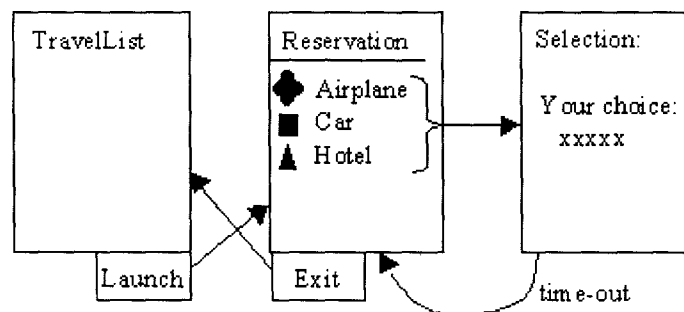
Explain in words, and with diagrams if possible, the following J2ME concepts. Do **not** include code in any of your answers.

- CDC (5)
- CDLC (8)
- MIDP (7)
- Optional Profiles (5)
- Draw a single diagram showing the relationships between the concepts in (a) – (d). (5)

Question 2

(60 marks; 60 minutes)

Write a MIDlet which implements the following links diagram:



Each item in the reservation list is made up of an image and a string.

The "Selection" screen is an `Alert` object, which times out after a default period, and returns control to the reservation screen automatically. The "xxxxx" string will be "Airplane", "Car", or "Hotel", depending on the list selection in the "Reservation" screen.

Question 3

(30 marks; 30 minutes)

- Explain in words the MIDlet life cycle. (15)
- Briefly explain the various GUI classes that can be used as `Items` inside a `Form`. (15)

You should use code fragments and diagrams where possible.

Note: do not explain the `CustomItem` class.

--- End of Examination ---