

Solution Quiz#2

March 25, 2011

BESE 15

(3+3)

1. List the challenges associated with using the following for text entry to the computer:

- a. Speech Recognition

Some of the problems could be:

External noise interfering

Imprecision of pronunciation

Large vocabularies are difficult to handle

Different speakers

- b. Handwriting Recognition

Problems with handwriting recognition include

Segmenting joined up writing into individual letters

Interpreting individual letters

Coping with different styles of handwriting

(3)

2. How does a chord keyboard work? How many keys would you need if a chord key board is to be designed for dialing telephone numbers?

Chord keyboards are small keyboards with only a few keys (4 to 5) and letters typed as combination of key presses similar to playing a chord on a piano. Each key can be considered as a bit. For dialling a number we need to have codes for digits 0 to 9 so 4 keys ($2^4=16$ codes) will be required.

(3)

3. What are haptic devices, Give an example of a haptic device.

Haptic devices take advantage of our sense of touch by applying forces/vibrations. Examples include electronic Braille and vibration of joystick in video games.

4. What is a page description language and why is it useful?

Page description language uses a *description* of the page instead of the actual contents and is like a programming language for printing. E.g. Instructions for curves, lines, text in different styles, etc. It is useful in the sense that actual page content may take a huge memory if converted to a bitmap. So instead a description of the page is used.