


16 + 1.5

National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	Human Computer Interaction	Course Code:	CS 422
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	Exam Type:	Midterm-I		

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 Instruction/Notes: Solve on question paper, answer sheets are not required.

Question1. What input and output devices would you use for the following systems? For each, compare and contrast alternatives, and if appropriate indicate why the conventional keyboard, mouse and CRT screen may be less suitable. (3 x 4 Points)

(a) Portable word processor for blind and normal users.

Input Device1:

Voice recognition ^{processor} to interpret input from both blind and normal users.

Input Device2:

Symbol and Action recognizer

Output Device1:

Speakers can be used to convey the data to blind.

Output Device2:

(b) Tourist information system

Input Device1:

Fingerprint scanner

Input Device2:

Facial recognition

Output Device1:

For tourists authenticity

Output Device2:

(c) Air traffic control system

Input Device1:

Flights logistics handler

Input Device2:



Transmitting device

Output Device1:

To manage and locate flight details.

Output Device2:

Receiver

To transmit voice and important information to Pilot and scheduling of flights route.

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(d) Worldwide personal communications system

Input Device1:

Telephone

Input Device2:

letters, telegrams

Output Device1:

Output Device2:

Question 3: What can a system designer do to minimize the memory load of the user? Give at least two options. (4 Points)

System designer can implement an efficient and ultra fast system to keep the user informed and could store chunks of memory that can be retrieved faster in no time.

- Extra storage hardware

Question 4: A typical computer system comprises a QWERTY keyboard, a mouse and a color screen. There is usually some form of loudspeaker as well. You should know how the keyboard, mouse and screen work. If you were designing a keyboard for a modern computer, and you wanted to produce a faster, easier-to-use layout, what information would you need to know and how would that influence the design? (2 Points)

Things to know:

- Keys which are frequently used could be placed close to each other.
- Access to keys must be in no time.
- User friendly keyboard.
- RGB lights keyboard for keys to be prominent and easy to use.