National University of Computer and Emerging Sciences, Lahore Campus

Course Name:	Human Computer Interaction	Course Code:	CS 422	
Program:	CS	Semester:	Spring 2018	
Duration:	60 Minutes	Total Marks:	3+4+4+5+2	
Paper Date:	26-FEB-18	Weight	15	
Section:	ALL	Page(s):	2	
Exam Type:	Midterm-I			

Student : Name:_____ **Roll No.**_____
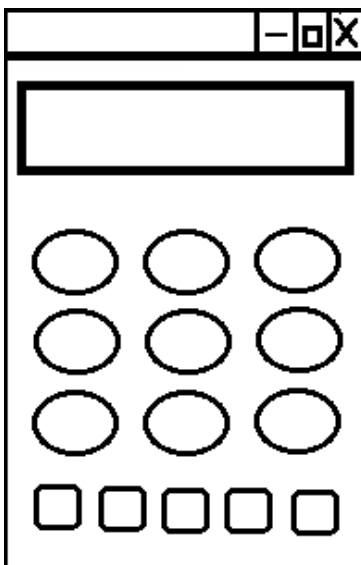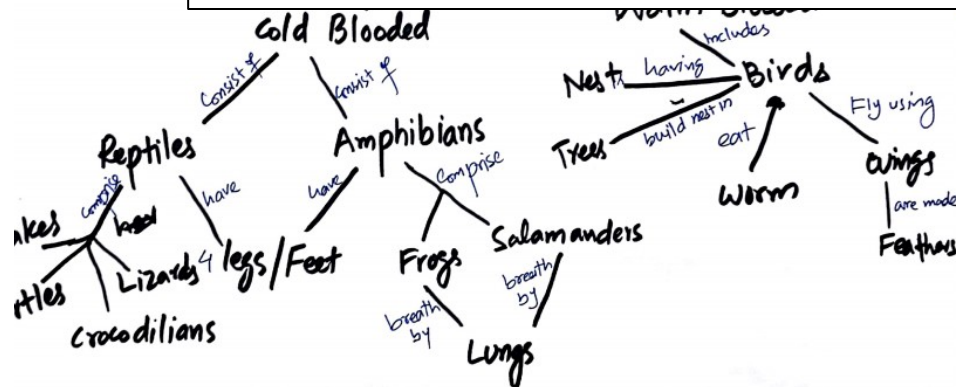**Section:**_____

Instruction/Notes: **No rough sheets!**

1: In each of the following cases, specify which type of reasoning is used.

   a. You bought software from a shop XYZ and it had a virus. Your friend tells you that he bought software that had virus too. You assume it was also from XYZ.

_____Abductive_____

   b. You use an ABC editor that uses ctrl-9 to create a pdf file of the document. You try to use ctrl-9 to create a pdf file in MS word.

_____Inductive_____

   c. A novice user does not use shortcut keys. You saw that your friend did not use shortcut key to save his work. You think he is a novice user.

_____Abductive_____

2: Indicate which **input** mechanism (i.e. device or system), and **output** mechanism is appropriate for each of the following cases.

   a. You need to install a system in the Drewar Fort where tourist can get information about the fort like its history, various sites etc.

    Input mechanism: Touch sensitive screen

    Output mechanism: The same screen used for touch sensitive screen

   b. You need to develop a word processor for a person who cannot use his limbs.

    Input mechanism: speech/voice/audio input

    Output mechanism: lcd/crt monitor/screen

3: Can the calculator given below utilize the concept of "infinite width"? If no, explain why? If yes, redraw the calculator that applies this concept.

No, since the calculator is a dialog based application that does not run on full screen. This calculator has the icon for full screen, but usually calculator applications are not meant to run on full screen so most likely if the calculator is maximized it will still remain of the same size.

4: Read the following passage carefully and create a Semantic Network Model. Start from the most basic entity, Animal, and then proceed further accordingly. Label the links between the objects with attributes mentioned with each object in the paragraph.

"There are two main classes of animals based on blood type: Cold blooded and Warm blooded. Cold Blooded Animals, such as reptiles and amphibians that cannot control their body temperature and therefore become sluggish in cold weather. Reptiles are tetrapod (having four feet, legs or leg like appendages) animals, comprising turtles, crocodilians, snakes, lizards etc. Amphibian, comprises frogs and salamanders, adult animals of this class breathing by lungs. Warm blooded Animals, such as birds that maintain a constant body temperature regardless of the temperature of the surroundings. Birds have some properties such as, they fly using their Wings and eat worm. Their Wings are made of Feathers and build their nests in the Trees."

5: Explain anti-aliasing with the help of diagram **only**.

Two images, One with black and white pixels. The other with some gray ones.

For rough work: