Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov / Dec– 2019**

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| **Code :** | **14CS2020** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF HUMAN COMPUTER INTERACTION** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Draw the architecture of Interactive Systems and describe the functions of various components. Design interactive system for controlling the room temperature using Temperature Control Model consists of Min, Max, Temp integer values, also describe view and controller for the following scenario.  i) Graphical temperature control.  ii) Speech temperature control.  iii) Physical world temperature control. | CO1 | 15 |
| b. | How widgets can be placed in Mac OS X for layout mechanism? | CO2 | 2 |
|  | c. | Which system can be used to design a layout model using mathematical formulas?. | CO3 | 3 |
| **(OR)** | | | | |
| 2. | a. | Originally, variable intrinsic size layouts had only vertical stacks and horizontal stacks as their compositing mechanism. Why would the assignments in the layout of given diagram be problematic using only these mechanisms? | CO3 | 10 |
|  | b. | Draw and explain the simple model architecture that does not work on large models. | CO2 | 10 |
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| 3. | a. | Write down the limitations in standard widget architecture? Draw the architecture of abstract model widget and show how it overcomes the limitations of standard widget architecture. | CO1 | 15 |
| b. | Explain about the physiology and vision system of visual design in terms of “look” computing culture. | CO3 | 5 |
| **(OR)** | | | | |
| 4. | a. | Sketch the architecture of Model-View-Controller and mention the places where interface distribution can occur. | CO2 | 12 |
| b. | Draw and explain a mouse event diagram for the simple pressing on-screen push button. | CO3 | 8 |
| 5. | a. | Give an example for synchronous and asynchronous collaboration. | CO3 | 3 |
| b. | Differentiate Layout and Constraints. Discuss any two layout algorithms with example. | CO2 | 12 |
| c. | List out the steps for implementing model-view-controller. | CO1 | 5 |
| **(OR)** | | | | |
| 6. | a. | Write the difference between Unistrokes and Multistrokes. | CO3 | 5 |
| b. | Write down the different types of data transfer needed to establish the connection. | CO2 | 15 |
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| 7. | a. | Identify and explain which type of widget allow you to group things by similarity, topic, information and variety. List out some of the applications related with this widgets and find the similarities and differences between them. | CO3 | 12 |
| b. | Draw and explain the form DOM tree. | CO1 | 8 |
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| **(OR)** | | | | |
| 8. | a. | Explain about the state machine diagram for the following vent methods:  (i) mouseDown (), (ii) mouseMove (), (iii) mouseUp() | CO1 | 10 |
| b. | Write down several ways how the resources are stored in Interface design tools. | CO2 | 5 |
| c. | Mr.X copied a table from excel file and pasted it to a word file. When Mr. X makes changes in the excel file, he needs the new values to be changed in the word file. How can it be implemented? | CO3 | 5 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Explain about different types of evaluation methods used for user interfaces. | CO1 | 10 |
| b. | Explain World Wide Web interaction technologies. | CO3 | 10 |