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



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

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| **Code :** | **17CS2037** | **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. | Explain with a neat diagram, the architecture of interactive systems. | CO1 | 10 |
| b. | Discuss on the concept of light and color and explain the following:  i) RGB ii) HSB iii) CMYK | CO2 | 10 |
| **(OR)** | | | | |
| 2. | a. | Examine the various drawing methods and drawing models to represent an image. | CO2 | 10 |
| b. | Discuss on the different types of widget. | CO2 | 10 |
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| 3. | a. | Describe the concept of internationalization and stress on the factors that are involved in localizing a user interface to a particular culture. | CO3 | 14 |
| b. | Implement a contact manager application using a common widget set. Each person should have all the entries like name, phone number, address, etc. Use a desired widget to create a list of contacts. | CO1 | 6 |
| **(OR)** | | | | |
| 4. | a. | Explain the following types of layout system with a suitable design:   1. Fixed Position layout 2. Edge anchored layout 3. Variable Intrinsic Size layout | CO3 | 12 |
| b. | Compare and contrast tree widget with table widget. | CO3 | 8 |
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| 5. | a. | Write a detailed note on propositional production system for syntax specification. | CO3 | 10 |
| b. | Use 2D geometry principles to derive the implicit and parametric forms of any five geometric shapes. | CO4 | 10 |
| **(OR)** | | | | |
| 6. | a. | Describe a detailed note on selecting shapes and explain the click selection, rectangle selection and Lasso selection. | CO5 | 10 |
| b. | Discuss in detail the data transfer mechanism involved in the Cut, Copy, Paste, Drag and Drop. | CO5 | 10 |
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| 7. | a. | Describe the problem of a single window that must view a larger world space using fisheye views, infinite zooming and focus + context. | CO5 | 12 |
| b. | Discuss on any four handheld computing devices and compare their text techniques. | CO4 | 8 |
| **(OR)** | | | | |
| 8. | a. | Discuss on the variety of designs that have been proposed for improving selection time on improving menus and marking menus. | CO5 | 10 |
| b. | List the standard steps to be followed for every digital-ink application. | CO6 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Draw a simple scene graph architecture under presentation architecture, using rectangles, lines, and ellipses. Demonstrate that the screen gets updated every time the graph is changed. | CO5 | 10 |
| b. | Stress on the concept of Situation Task User(STU) and elaborate on the evalution method. | CO6 | 10 |