#### SIDDHARTH INSTITUTE OF ENGINEERING AND TECHNOLOGY:: PUTTUR (AUTONOMOUS)

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#### **OUESTION BANK (DESCRIPTIVE)**

Subject with Code: HUMAN COMPUTER INTERACTION (20CS0534)

Course & Branch: B. Tech / CSE

Year & Sem: III & II Regulation: R20

#### UNIT –I Introduction: User Interface, GUI, Web User

| 1  | a)  | What is HCI and Observe the various goals of HCI?                           | [L1][CO1] | [6M]  |
|----|---|---|-----------|-------|
|    | b)  | Summarize history of the Screen design.                                     | [L2][CO1] | [6M]  |
| 2  | a)  | Explain in detail the concept of direct Manipulation.                       | [L2][CO1] | [6M]  |
|    | b)  | Examine the importance of good design?                                      | [L3][CO1] | [6M]  |
| 3  | a)  | Illustrate in detail about Graphical User Interface.                        | [L2][CO1] | [6M]  |
|    | b)  | Assess the importance of user interface design in HCI.                      | [L4][CO1] | [6M]  |
| 4  | Disti   | nguish between GUI and Web page design.                                     | [L4][CO1] | [12M] |
| 5  | Disc  | uss the popularity of web user interfaces.                                  | [L2][CO1] | [12M] |
| 6  | Write any five important principles to be considered in designing user Interface. |   | [L1][CO1] | [12M] |
| 7  | List and explain various characteristics of the GUI?                              |   | [L1][CO1] | [12M] |
| 8  | a)  | Compare and Contrast the advantages and disadvantages of Graphical Systems? | [L4][CO1] | [6M]  |
|    | b)  | What are the benefits of a well-designed interface?                         | [L1][CO1] | [6M]  |
| 9  | Anal  | yze Xerox STAR's general principle?   | [L4][CO1] | [12M] |
| 10 | Expl  | ain the general principle of User Interface design?                         | [L1][CO1] | [12M] |

# UNIT –II DESIN PROCESS, SCREEN DESIGNING

| 1  | a)   | Discuss about interaction of people with computers.                           | [L2][CO2] | [6M]  |
|----|--|---|-----------|-------|
| 1  | b)   | What are the human considerations in design? Explain                          | [L1][CO2] | [6M]  |
| 2  | a)   | Write any five human characteristics in design and explain.                   | [L1][CO2] | [6M]  |
| 2  | b)   | Explain in detail about determining basic business functions.                 | [L4[CO2]  | [6M]  |
| 3  | a)   | Explain about business definition and requirement analysis.                   | [L2][CO2] | [6M]  |
|    | b)   | Illustrate in detail User's knowledge and experience.                         | [L3][CO2] | [6M]  |
| 4  | a)   | Explain about screen navigation and flow.                                     | [L2][CO2] | [6M]  |
|    | b)   | Explain how the ordering of screen data and content affects the performance.  | [L5][CO2] | [6M]  |
| 5  | a)   | Write about the five important interface design goals.                        | [L1][C02] | [6M]  |
|    | b)   | Justify amount of information in screen designing.                            | [L5][CO2] | [6M]  |
| 6  | a)   | Discuss about focus and emphasis in screen designing.                         | [L2][CO2] | [6M]  |
| U  | b)   | How information retrieval is done from web in screen designing.               | [L1][CO2] | [6M]  |
| 7  | a)   | Illustrate screen meaning and purpose   | [L2][CO2] | [6M]  |
| ,  | b)   | What are various types of statistical graphics? Explain it in detail.         | [L1][CO2] | [6M]  |
| 8  | Discuss in detail about visually pleasing composition [L2][0 |   | [L2][CO2] | [12M] |
| 9  | How  | to presenting the information simply and meaningfully?                        | [L1][CO2] | [12M] |
| 10 | Disc   | suss various technological considerations involved in designing an interface. | [L2][CO2] | [12M] |

## UNIT –III SYSTEM MENUS, WINDOWS, CONTROLS

| 1  | a)   | Outline the structures of Menus with appropriate sketches.               | [L2][CO3] | [6M]  |
|----|--|--|-----------|-------|
|    | b)   | Explain in detail various Window characteristics.                        | [L2][CO3] | [6M]  |
| 2  | a)   | Discuss elaborately various components of a Window.                      | [L2][CO3] | [6M]  |
|    | b)   | What is window in GUI? Explain various types of Windows.                 | [L1][CO3] | [6M]  |
| 3  | a)   | What is a Menu? Why menus are important? Explain the functions of menus. | [L1][CO3] | [6M]  |
|    | b)   | Discuss about various operable controls in HCI.                          | [L2][CO3] | [6M]  |
| 4  | a)   | Compile various window presentation styles in HCI.                       | [L6][CO3] | [6M]  |
| 4  | b)   | Explain about the selection of proper device-based controls.             | [L2][CO3] | [6M]  |
| _  | a)   | Discuss about the content of menus                                       | [L2][CO3] | [6M]  |
| 5  | b)   | Recall different kinds of graphical menus. Explain it in detail.         | [L1][CO3] | [6M]  |
|    | a)   | Illustrate about Text entry/Read Only Controls in user interface design. | [L3][CO4] | [6M]  |
| 6  | b)   | Examine various characteristics of device based controls.                | [L3][CO4] | [6M]  |
| 7  | a)   | Give the guidelines for selecting the proper device based controls       | [L1][CO4] | [6M]  |
| /  | b)   | Define the combination of Entry/Selection controls.                      | [L1][CO4] | [6M]  |
| 8  | a)   | Construct various structures of menus with diagrams                      | [L6][CO4] | [6M]  |
| U  | b)   | What are the various components of windows in HCI? Explain it.           | [L2][CO4] | [6M]  |
| 9  | Explain about Device-based controls and Screen-based controls? [L2][CO4] |  | [12M]     |       |
| 10 | Disc   | uss the advantages and disadvantages of keyboard and mouse?              | [L2][CO4] | [12M] |

### UNIT –IV GRAPHICS, TESTING

| 1  | a)  | What is an Icon? Explain different icons in detail.                     | [L1][CO5]              | [6M]         |
|----|---|---|------------------------|--------------|
|    | b)  | Explain in detail about how to choose colors?                           | [L2][CO5]              | [6M]         |
|    | a)  | What is a color? List uses of color.                                    | [L1][CO5]              | [6M]         |
| 2  | b)  | Categorize various graphics available while designing GUI in HCI.       | [L4][CO5]              | [6M]         |
| 3  | Discuss about components of Multimedia.                               |   | [L2][CO5]              | [12M]        |
|    | a)  | Illustrate about creation of meaningful graphics, icons and images.     | [L2][CO5]              | [6M]         |
| 4  | b)  | Discuss various possible problems in choosing colors for screen design? | [L1][CO5]              | [6M]         |
| 5  | a)  | Examine in detail colors and human vision in HCI.                       | [L4][CO5]              | [6M]         |
|    | b)  | Explain in brief purpose and importance of usability testing.           | [L2][CO5]              | [6M]         |
| 6  | a)  | Write short notes on Testing.   | [L2][CO5]              | [6M]         |
| 0  | b)  | Describe elaborately scope of testing.                                  | [L2][CO5]              | [6M]         |
| 7  | a)  | Compile different Guidelines for scope of testing                       | [L6][CO5]              | [6M]         |
| /  | b)  | Illustrate with necessary examples, the prototypes in testing           | [L3][CO5]              | [6M]         |
| 8  | Analyze various kinds of testing techniques. [L4][CO5]                |   |                        | [12M]        |
| 9  | Evaluation procedure for developing and conducting the test [L4][CO5] |   |                        | [12M]        |
| 10 | i) p  | nmarize the test urpose of testing mportance of testing                 | [L2][CO5]<br>[L2][CO5] | [6M]<br>[6M] |

UNIT –V
Software Tools, Interaction Devices

| 1  | a)   | Explain in brief, various specification methods for building an interface. | [L2][CO6] | [6M]    |
|----|--|--|-----------|---------|
|    | b)   | Discuss the features of interface-building tools.                          | [L2][CO6] | [6M]    |
| 2  | Explain the following i) Comparison of pointing devices  |  | [L2][CO6] | [12M]   |
| 2  | ii) Speech and auditory interfaces   |  |           | [121/1] |
| 3  | i) Iı  | mine the following term direct pointing devices Function keys of Keyboard  | [L3][CO6] | [12M]   |
| 4  | a)   | What is the function of an input device? List various input devices.       | [L1][CO6] | [6M]    |
| 4  | b)   | Explain in detail about the function of Key board and its function keys.   | [L2][CO6] | [6M]    |
| 5  | Dis  | cuss about Image and Video displays?                                       | [L2][CO6] | [12M]   |
| 6  | Exp  | plain in brief about Digitization and generation?                          | [L2][CO6] | [12M]   |
| 7  | Illustrate the following i) Indirect pointing devices ii) Speech recognition iii) Display technology |  | [L3][CO6] | [12M]   |
| 8  | Explain in brief about Building tools? [L  |  | [L2][CO6] | [12M]   |
| 9  | Discuss drivers in interaction devices? [L2][CO6]  |  | [L2][CO6] | [12M]   |
| 10 | a)   | Write about the Borland J Builder interface building tool.                 | [L1][CO6] | [6M]    |
|    | b)   | Discuss about Microsoft Visual Studio.                                     | [L2][CO6] | [6M]    |

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