



**SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR**  
Siddharth Nagar, Narayanavanam Road – 517583

**QUESTION BANK (DESCRIPTIVE)**

**Subject with Code : HCI (9F00504b)**

**Course & Branch: MCA**

**Year & Sem: III-MCA & I-Sem**

**Regulation:R09**

**UNIT –I**

**Introduction**

- |      |  |     |
|------|--|-----|
| 1 a) | Define HCI. What is the importance of good design?                                 | 5M  |
| b)   | Write a brief history of screen design.  | 5M  |
| 2 a) | Write the chronological history of the Internet.                                   | 5M  |
| b)   | What are the benefits of good design? Explain.                                     | 5M  |
| 3 a) | Write the chronological history of GUI.  | 5M  |
| b)   | Discuss about the blossoming of the WWW.   | 5M  |
| 4 a) | Give a brief introduction of the GUI.  | 5M  |
| b)   | Discuss about the importance of good design.                                       | 5M  |
| 5 a) | Define and Discuss the importance of User Interface design                         | 5M  |
| b)   | Give the brief history of screen design.   | 5M  |
| 6 a) | Discuss the impacts of inefficient screen design on processing times.              | 5M  |
| b)   | Write the importance of well-designed interface.                                   | 5M  |
| 7 a) | Define Human Computer Interaction. Discuss the importance of User Interface design | 5M  |
| b)   | Discuss the chronological history of Graphical User Interfaces                     | 5M  |
| 8 a) | Write are the benefits of Well-designed interfaces.                                | 5M  |
| b)   | Give the brief history of screen design.   | 5M  |
| 9 )  | Explain about history of Screen Design   | 10M |
| 10 ) | Explain the different screens in various decades                                   | 10M |



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**UNIT –II**

**The Graphical user interface**

- |      |  |     |
|------|--|-----|
| 1 a) | What is the concept of direct manipulation? Explain.   | 5M  |
| b)   | Distinguish between GUI and Web page design.   | 5M  |
| 2 a) | What are the disadvantages of graphical systems? Explain.  | 5M  |
| b)   | Describe about the popularity of web-user interface.   | 5M  |
| 3 a) | Write about the merits of graphical systems.   | 5M  |
| b)   | Briefly describe the differences between printed page and Web page design.   | 5M  |
| 4 a) | Discuss about the characteristics of a Web interface.  | 5M  |
| b)   | What re the characteristics of the GUI? Explain.   | 5M  |
| 5    | Discuss the similarities and differences between Graphical User Interface and Web Interface design.  | 10M |
| 6    | What are the advantages and disadvantages of Graphical Systems? Explain  | 10M |
| 7 a) | Write the characteristics of Direct manipulation systems. Is the concept of direct manipulation is preferable in all cases of screen design? Justify | 5M  |
| b)   | Write any five important principles to be considered in designing a user Interface   | 5M  |
| 8)   | Define Graphical User Interface. Discuss the importance of GUI also write the characteristics of the Graphical User Interface.                       | 10M |
| 9)   | Explain the general principle of User Interface design?  | 10M |
| 10)  | Explain the general principle of Xerox STAR?   | 10M |



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**UNIT –III**

**Design Process**

- |      |   |     |
|------|---|-----|
| 1 a) | Explain about business definition and requirement analysis.   | 5M  |
| b)   | What are the human considerations in design? Explain.   | 5M  |
| 2 a) | Discuss about interaction of people with computers.   | 5M  |
| b)   | Explain in detail about determining basic business functions.   | 5M  |
| 3 a) | What are design standards? Explain.   | 5M  |
| b)   | Describe the User's knowledge and experience.   | 5M  |
| c)   | Write any five human characteristics in design and explain.   | 5M  |
| 4 a) | What are the User's tasks and needs? Explain.   | 5M  |
| b)   | How people interact with computers? Explain.  | 5M  |
| c)   | Describe developing conceptual models.  | 5M  |
| 5 a) | Briefly discuss the main human characteristics that are to be considered in designing a good interface.           | 5M  |
| b)   | Discuss how the physical characteristics of people affect their interaction with systems.                         | 5M  |
| 6 )  | Explain in detail various human aspects that are important and must be considered in designing a good interface.  | 10M |
| 7 a) | Why the user's knowledge and experience are to be considered in designing a good interface? Explain.              | 5M  |
| b)   | List various direct and indirect methods for determining the requirements   | 5M  |
| 8 a) | Explain in detail the various human characteristics that are to be considered in designing a good user interface. | 5M  |
| b)   | Discuss various indirect methods of requirements determination.   | 5M  |
| 9 )  | Explain the guidelines of designing of conceptual model?  | 10M |
| 10)  | Define object and metaphor and how to develop metaphors?  | 10M |



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**UNIT –IV**

**Screen Designing**

- |     |  |     |
|-----|--|-----|
| 1   | Discuss in detail about visually pleasing composition.   | 10M |
| 2   | a) Explain about screen navigation and flow.   | 5M  |
|     | b) What are the technological considerations of interface design? Explain.   | 5M  |
| 3   | a) What are various types of statistical graphs? Explain.  | 5M  |
|     | b) Describe reading, browsing and searching on the Web.  | 5M  |
| 4   | a) Discuss about display/read-only screens.  | 5M  |
|     | b) What are screen elements? Explain.  | 5M  |
| 5   | a) Explain the importance of grouping screen elements with a suitable example.   | 5M  |
|     | b) Write the principles and various types of grouping screen elements.   | 5M  |
| 6   | Discuss various technological considerations involved in designing an interface.   | 10M |
| 7   | a) With a neat example, Explain how the ordering of screen data and content affects the performance.                       | 5M  |
|     | b) Explain the importance of statistical graphics in screen design. With neat diagrams, List various statistical graphics. | 5M  |
| 8   | a) With a neat sketch, Explain various visually pleasing compositions of screen design.                                    | 5M  |
|     | b) Write about the five important interface design goals.  | 5M  |
| 9)  | How to presenting the information simply and meaningfully?   | 10M |
| 10) | What is typography? Explain different fonts and families?  | 10M |



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**UNIT –V**

**Windows**

- |   |     |
|---|-----|
| 1 a) Discuss about the phrasing of the menu.  | 3M  |
| b)What are Window operations? Explain.  | 3M  |
| c)Explain about the selection of proper device-based controls.  | 4M  |
| 2 a)What are the characteristics of device-based controls?  | 3M  |
| b)What are Window characteristics?  | 3M  |
| c)How to format on Menus? Explain.  | 3M  |
| 3 a)What are structures of menus? Explain.  | 4M  |
| b)Describe various types of Windows.  | 3M  |
| c)How to select the proper device-based controls?   | 3M  |
| 4 a)What are the Window operations? Explain.  | 5M  |
| b)Explain about the components of a Window.   | 5M  |
| 5 a) With neat diagrams, Explain various structures of menus.   | 5M  |
| b) Explain the various types of windows with suitable examples.   | 5M  |
| 6 a) What is a menu? Why menus are important and also Explain the functions of menus.   | 5M  |
| b) Write about various window presentation styles.  | 5M  |
| 7 a) What are the various components of a window? Explain.  | 5M  |
| b) Discuss the technical issues and problems in web site navigation.  | 5M  |
| 8 Explain in brief about Device-based controls and Screen-based controls? Give the guidelines for selecting the proper controls in screen design. | 10M |
| 9.) Give the advantages and dis advantages of keyboard and mouse?   | 10M |
| 10.) Explain the usage and guide lines of input devices?  | 10M |



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**UNIT –VI**

**Components**

- |  |     |
|--|-----|
| 1 a)How to choose colors? Explain.   | 4M  |
| b)Explain the following with respect to Icons:   |     |
| (i) Types (ii) Characteristics (iii) Usability (iv) Choosing   | 6M  |
| 2 a)What is an Icon? Explain different icons in detail.  | 4M  |
| b)Explain about the text for Web pages.  | 3M  |
| c)Describe choosing colors for statistical graphical screens.  | 3M  |
| 3 a)Discuss about components of Multimedia.  | 5M  |
| b)Explain in detail about choosing colors.   | 5M  |
| 4 a)Briefly discuss about creation of meaningful graphics, icons and images.   | 5M  |
| b)What is a color? What are color uses? What are the possible problems with colors?  | 5M  |
| 5 a) Give the guidelines for selecting images in designing icons.  | 5M  |
| b) Write the various factors that must be considered in choosing colors for information.   | 5M  |
| 6 a) Write the guidelines for writing the message box text.  | 5M  |
| b) What is an Icon? What are the types of Icons? What are the characteristics of Icons and list the factors that influence icon's usability. | 5M  |
| 7 Discuss in detail various issues involved in designing an icon.  | 10M |
| 8 a) What is a message? Explain the types of system messages with neat diagrams.   | 5M  |
| b) What are the possible problems in choosing colors for screen design   | 5M  |
| 9.) Explain the icon animation and audition?   | 10M |
| 10.) How to choose proper colors for web designing?  | 10M |



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**UNIT – VII**

**Software tools**

- |      |  |     |
|------|--|-----|
| 1    | Discuss in detail about Backus-Naur Form (BNF) with examples.                          | 10M |
| 2    | Explain in detail about interface-building tools.                                      | 10M |
| 3    | Briefly discuss about Microsoft Visual Studio.   | 10M |
| 4    | a) Explain in brief, various specification methods for building an interface.          | 5M  |
|      | b) Discuss the features of interface-building tools.                                   | 5M  |
| 5    | a) Write about the Borland JBuilder interface building tool.                           | 5M  |
|      | b) Discuss the benefits of using interface building tools.                             | 5M  |
| 6    | Explain in detail about Backus-Naur form and transition diagram with suitable example. | 10  |
| 7    | a) Give the main criteria for selecting the right tool for building an interface.      | 5M  |
|      | b) Write about Microsoft Visual Studio.  | 5M  |
| 8.)  | What are six main criteria for finding the right tool? Explain in detail.              | 10M |
| 9.)  | Explain in brief about Building tools ?  | 10M |
| 10.) | Discuss Specification methods in software tools ?                                      | 10M |



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**UNIT –VIII**

**Interaction devices**

- 1 Explain the following:
  - a) Comparison of pointing devices 4M
  - b) Speech and auditory interfaces 3M
  - c) Mobile device displays 3M
- 2 Explain the following:
  - a) Printers 4M
  - b) Voice information systems 3M
  - c) Pointing devices 3M
- 3 Explain the following:
  - a) Indirect pointing devices 3M
  - b) Speech recognition 3M
  - c) Display technology 4M
- 4 Explain the following:
  - a) Direct-control pointing devices 3M
  - b) Discrete word recognition 3M
  - c) Function keys 4M
- 5 Write short notes on
  - i). Indirect pointing devices 3M
  - ii). Function keys of Keyboard 3M
  - iii). Mobile device displays 4M
- 6 a) Explain any four kinds of display technologies. 5M  
 b) What is meant by digitization? Explain various issues in continuous speech generation and recognition. 5M
- 7 Write short notes
  - i). Fitt's Law. 4M
  - ii). Mobile Device Displays . 3M
  - iii). Direct pointing devices. 3M
- 8.) What is the function of an input device? List various input devices. Explain in detail about the function of Key board and its function keys. 10M
- 9.) Explain about Image and Video displays? 10M
- 10.) Explain in brief about Digitization and generation? 10M