Various device-based controls:

1. Trackball:

- What: A ball that moves freely in all directions in a socket.
- How: Rotate the ball with fingertips to move the on-screen cursor.
- Useful for: Navigational control in video games or 3-D environments.

2. Joystick:

- What: Stick or bat-shaped device anchored at the bottom.
- Sizes: Come in various sizes, operated by fingers or the whole hand.
- Types: Some are immovable (respond to pressure), others movable (within a dish-shaped area).
- Useful for: Fine or gross coordination tasks, mounted on keyboards.

3. Graphic Tablet:

- What: Horizontal surface sensitive to pressure, heat, light, or blockage of light.
- How: Operated with fingers, stylus, or other objects. Mimics movement on the screen.
- Useful for: Graphic design and precise input tasks.

4. Light Pen:

- What: Utilizes a touch screen sensitive to a specific pen or stylus.
- How: Similar to a graphic tablet, but with a specific pen or stylus.

5. Touch Screen:

- What: Screen sensitive to finger or stylus touch.
- How: Point and touch objects on the screen for selection.
- Useful for: Direct interaction with on-screen elements.

6. Voice:

- What: Automatic speech recognition technology.
- How: Recognizes and processes spoken commands.

• Useful for: Hands-free control, especially in situations where manual input is impractical.

7. Mouse:

- What: Movable desktop control with one to three buttons.
- How: Move the mouse to control the on-screen pointer.
- Useful for: Manipulating objects and information on the screen.

Related posts:

- 1. What do you mean by user interface? Define user interface design. Why user interface is important?
- 2. Describe the importance of good design.
- 3. What are the benefits of good design?
- 4. Write a short note on history of screen design.
- 5. What do you mean by graphical user interface?
- 6. What is popularity of graphics?
- 7. Describe the concept of direct manipulation
- 8. What is graphical system? Write down its advantages and disadvantages.
- 9. Describe the characteristics of graphical system.
- 10. Describe the characteristics of intranet versus the internet.
- 11. What are the usability problems in graphical system?
- 12. Explain web user interface.
- 13. Discuss the popularity of web interface.
- 14. What are the characteristics of web user interface?
- 15. Describe the principles of user interface.
- 16. Describe the principles established the foundation for graphical interfaces.
- 17. Describe the design goals in creating user interface.

- 18. Why web user interface design difficult?
- 19. Explain the five commandments for designing user interface
- 20. Discuss human computer interaction.
- 21. How a person interact with computer.
- 22. What are the factors that make system difficult to use?
- 23. What are the psychological responses to poor design?
- 24. What are the physical reactions to poor design?
- 25. Explain the important human characteristics.
- 26. Describe the following term with respect to humancharacteristics in design:
- 27. Describe human consideration in design.
- 28. What are the characteristics of mandatory use in user's task for design?
- 29. Give the characteristics of discretionary user
- 30. Explain human interaction speed.
- 31. What are the methods for gaining an understanding of users?
- 32. Discuss business and requirement analysis.
- 33. Designing a website, what kinds of interview questions are appropriate for asking users?
- 34. Explain focus group. What are steps in setting up a focus group?
- 35. Explain card sorting for websites.
- 36. Describe the steps for creating electronic survey.
- 37. Determine the basic business functions.
- 38. What is screen design? Define a well designed screen.
- 39. Describe the goals in screen design.
- 40. What is meant by screen and define it purpose.
- 41. How we can organize screen elements clearly and meaningfully?
- 42. Describe ordering of screen data and content.
- 43. What do you mean screen navigation and flow?

- 44. What do you understand by visually pleasing composition?
- 45. Discuss the perceptual principles that can be used toaid screen functional groupings.
- 46. How to group screen elements using border?
- 47. Discuss amount of information.
- 48. Discuss the following:
- 49. How to minimize the problems in scrolling?
- 50. Discuss about the term 'Distinctiveness'.
- 51. Discuss the techniques to provide emphasis.
- 52. How to convey depth of levels or a three-dimensional appearance?
- 53. How information is presented simply and meaningfully?
- 54. Discuss about typography.
- 55. Discuss about information entry and modification screens.
- 56. What are the types of statistical graphics?
- 57. Discuss intranet and extranet design guidelines.
- 58. Write short note on statistical graphics
- 59. Explain the components of statistical graphics.
- 60. Discuss technical consideration in interface design for : i. Graphical system ii. Web system iii. Other web consideration
- 61. Discuss windows and its characteristics.
- 62. What are the components of window?
- 63. Describe the window presentation style.
- 64. What are the advantages of tiled window and overlapping window?
- 65. What are the different types of windows?
- 66. Explain different window management schemes.
- 67. Describe the structure of menus.
- 68. Discuss the functions of menus.
- 69. What are website navigation problems?

- 70. What are the various task performed by device-based controls.
- 71. What are the advantages and disadvantages of :i. Trackball ii. Joystickiii. Graphic tablet iv. Touch screen
- 72. Discuss the guidelines for selecting proper device-based controls.
- 73. What are selection controls?
- 74. Describe the various operable controls.
- 75. What is text? How we present and write text?
- 76. Discuss text for web pages.
- 77. Write a short note on message.
- 78. What are the message box guidelines recommended by Microsoft?
- 79. Discuss message box controls.
- 80. Discuss instructional message in detail.
- 81. What is icon? Write down the characteristics of icons.
- 82. Explain design process for icons.
- 83. Describe icon animation and audition.
- 84. Describe multimedia in detail.
- 85. What is color?
- 86. What are the uses of color?
- 87. What are the problems related to color?
- 88. How to choose color?
- 89. What is software tool ? What are the commonly usedtools in human computer interface ?
- 90. Explain specification method.
- 91. Describe interface building tools in detail.
- 92. What are the features of interface building tools?
- 93. Explain interaction devices.
- 94. Describe keyboard and function keys.

Discuss various device based controls.

- 95. Describe pointing devices and types of interaction tasks useful for pointing devices.
- 96. What are the types of pointing devices?
- 97. Explain speech recognitions.
- 98. Discuss speech digitization and generation.
- 99. Describe image and video displays.
- 100. What are the characteristics of video display devices?
- 101. Write a short note on drivers.