Final HCI

Answers

1. Which of the following fields is not an influence on HCI?

- ☐ A. Ergonomics
- ☐ B. Cognitive psychology
- ☐ C. Computer science
- ☐ D. All of the above are an influence on HCI

Answer: All of the above are an influence on HCI (D)

2. Scripting (the ability to record and play back programmable sequences of actions) is an example of:

- ☐ A. Speaking the user's language
- ☐ B. Allowing the user model to grow
- ☐ C. The recognition rather than recall_ principle
- ☐ D. A mode in the user interface design

Answer: Allowing the user model to grow (B)

3. An icon of a file folder, which users can drop .....les on in order to move them into the folder, is an example of which of the following:

- ☐ A. The recognition rather than recall principle
- ☐ B. Direct manipulation
- ☐ C. A metaphor
- ☐ D. All of the above

Answer: All of the above (D)

4. You drag a folder to make a copy of its contents. An animation appears on the screen, showing files moving from one folder to another. This is an example of which of the following:

- ☐ A. Visibility
- ☐ B. Mapping
- ☐ C. An affordance
- ☐ D. Feedback

Answer: Feedback (D)

5. Your new sound card is packaged in a plastic anti-static bag. The bag is sealed with a yellow sticker with a written warning not to expose the card to static electricity. The sticker is an example of:

- ☐ A. Perceptual constraint
- ☐ B. Cultural constraint
- ☐ C. Physical constraint
- ☐ D. B & C

Answer: B & C (D)

6. Which of the following statements is false?

- ☐ A. Norman's logical constraints are one way to implement Nielsen's principle of error prevention.
- ☐ B. The help and documentation called for by Nielsen's usability principle form part of Norman's definition of the system image.
- ☐ C. Norman's principle of feedback is one way to implement Nielsen's principle of recognition rather than recall.
- ☐ D. All of the above statements are true.

Answer: Norman's principle of feedback is one way to implement Nielsen's principle of recognition rather than recall. (C)

7. Which of the following statements is true?

- ☐ A. Violating Norman's feedback principle interferes with the fourth stage of Norman's Seven Stages of Action.
- ☐ B. There is no ethical way to collect data about people without their informed consent.
- ☐ C. Structured interviews are less likely to miss salient details than un- structured ones.
- ☐ D. All of the above statements are false.

Answer: All of the above statements are false. (D)

8. Which of the following gestures makes use of a quasi-mode?

- ☐ A. Selecting one of the commands (draw, spray paint, etc.) in the tool palette of a paint program.
- ☐ B. Using the Ctrl-V shortcut to paste text.
- ☐ C. Clicking a link in a web browser.
- ☐ D. All of the above make use of quasi-modes.

Answer: Using the Ctrl-V shortcut to paste text. (B)

9. Unlike traditional observation, guided observation:

- ☐ A. Sets strict guidelines for session activities
- ☐ B. Reduces error introduced by the experimenter
- ☐ C. Sets strict guidelines for session lengths
- ☐ D. Includes some interaction with participants

Answer: Includes some interaction with participants (D)

10. The Num Lock key found on many keyboards, which enables the user to use the number functions of the numeric keypad rather than the cursor control functions, indicates which of the following features is present:

- ☐ A. A mode
- ☐ B. A quasi-mode
- ☐ C. A physical constraint
- ☐ D. A logical constraint

Answer: A mode (A)

11. As we have used the terms in this course, what is the relationship between tasks, actions, and goals?

- ☐ A. A task is composed of goals and actions to accomplish those goals
- ☐ B. A goal is composed of a set of actions that accomplish a task
- ☐ C. None of the above
- ☐ D. B or C

Answer: B or C (D)

the intended answer is (d), but (c) is somewhat ambiguous and will also be accepted goals are abstract objectives; tasks are objectives that must be fullfed to achieve a goal; actions are specific concrete gestures required to achieve a task.

12. What is an important advantage of command-line interfaces over graphical user interfaces?

- ☐ A. The user is not distracted by an abundance of menus, icons, toolbars, etc.
- ☐ B. They work well for repetitive jobs like payroll processing or billing.
- ☐ C. Complex operations can be performed more efficiently, e.g. through command languages
- ☐ D. B & C

Answer: B & C (D)

13. Why should modal dialog boxes be used with care?

- ☐ A. They are very disruptive and prevent users from continuing their task.
- ☐ B. They have high resource requirements on the computer system.
- ☐ C. They frequently lead to application or system crashes.
- ☐ D. They are difficult to program because they have to work across applications

Answer: They are very disruptive and prevent users from continuing their task. (A)

14. Under which circumstances is the use of CAPITAL LETTERS appropriate in screen layout and design?

- ☐ A. Never, because text in capital letters is more difficult to read.
- ☐ B. To better distinguish text from the numbers when text and numbers are mixed
- ☐ C. To emphasize important items like field names, titles, or main categories.
- ☐ D. It should be used as often as possible because it reduces the number of bits required for the representation of character

Answer: To better distinguish text from the numbers when text and numbers are mixed (B)

15. The automatic code generation feature of user interface development tools can be very useful, but it can also be a disadvantage. What is the potential problem with automatic code generation?

- ☐ A. In the long run, it might put software developers out of work.
- ☐ B. The generated code can be inefficient and unnecessarily complex.
- ☐ C. Automatically generated code is very difficult to port across different platforms.
- ☐ D. The generated code typically contains more errors than code written by programmers

Answer: The generated code can be inefficient and unnecessarily complex. (B)

16. Out of the following user interface prototypes, which one has the lowest fidelity?

- ☐ A. A simulation of the interactive user interface, e.g. implemented in Visual Basic.
- ☐ B. A storyboard presentation.
- ☐ C. A textual description in a few paragraphs.
- ☐ D. A series of drawings prepared with a graphics package.

Answer: A textual description in a few paragraphs. (C)

17. In which phase of the UI design cycle should evaluation be performed?

- ☐ A. Throughout the design cycle.
- ☐ B. After the elicitation of user requirements
- ☐ C. After prototyping
- ☐ D. After implementation

Answer: Throughout the design cycle. (A)

18. Which usability testing method can be applied before the actual design of the product or system begins?

- ☐ A. Contextual inquiry.
- ☐ B. Focus groups
- ☐ C. Heuristic evaluation
- ☐ D. Co-discovery

Answer: Contextual inquiry. (A)

19. What is an important purpose of developing prototypes for a user interface?

- ☐ A. Developers use them to get familiarized with the tools they use
- ☐ B. Users can give early feedback, which can be more easily integrated into the design process.
- ☐ C. Prototypes can be used for marketing purposes long before the actual product is available.
- ☐ D. This way the user interface design can be completely separated from the development of the underlying system.

Answer: Users can give early feedback, which can be more easily integrated into the design process. (B)

20. Although humans often rely on spoken natural language to communicate with each other, spoken language is not used very heavily in human-computer interfaces. What is an important reason for that?

- ☐ A. The bandwidth of the auditory channel is more limited than that of the visual channel.
- ☐ B. Computers would have to understand many different languages and dialects.
- ☐ C. It requires speech recognition by computers, which as of now is too error-prone and consumes too many resources.
- ☐ D. Speech output by computers sounds rather unnatural.

Answer: It requires speech recognition by computers, which as of now is too error-prone and consumes too many resources. (C)

21. Why have menus become a practically indispensable part of current user interfaces?

- ☐ A. They allow an efficient formulation of complex input commands.
- ☐ B. They minimize cursor movements, thus making input actions more efficient.
- ☐ C. They provide quick access to frequently used commands (recognition over recall).
- ☐ D. They can be adapted easily to the specific preferences of individual users.

Answer: They provide quick access to frequently used commands (recognition over recall). (C)

22. .... are most often used to represent objects and actions with which users can interact with or that they can manipulate.

- ☐ A. Icons
- ☐ B. Windows
- ☐ C. Screens
- ☐ D. None

Answer: Icons (A)

23. A sign that was caused by the thing to which it refers?

- ☐ A. Icons
- ☐ B. Windows
- ☐ C. Screens

- ☐ D. Index

Answer: Index (D)

24. A sign that may be completely arbitrary in appearance?

- ☐ A. Symbol
- ☐ B. Windows
- ☐ C. Screens
- ☐ D. None

Answer: Symbol (A)

25. ....movement is independent of a system event, changing appearance to represent functions, processes, states, and state transitions

- ☐ A. Dynamic icon's
- ☐ B. Static icon's
- ☐ C. Both
- ☐ D. None

Answer: Dynamic icon's (A)

26. ....is used to identify links that may be followed.

- ☐ A. Navigational
- ☐ B. Horizontal
- ☐ C. Vertical
- ☐ D. None

Answer: Navigational (A)

27. ....is to illustrate items mentioned in the text.

- ☐ A. Organizational
- ☐ B. Navigational
- ☐ C. Screens
- ☐ D. Representational

Answer: Representational (D)

28. ....is used to depict relationships among items mentioned in text.

- ☐ A. Organizational
- ☐ B. Navigational
- ☐ C. Representational
- ☐ D. None

Answer: Organizational (A)

29. .... is used to show how things or processes work.

- ☐ A. Explanative
- ☐ B. Directive
- ☐ C. Exclusive
- ☐ D. Decorative

Answer: Explanative (A)

30. .... is to provide visual appeal and emphasis.

- ☐ A. Decorative
- ☐ B. Explanative
- ☐ C. Directive
- ☐ D. None

Answer: Decorative (A)

31. Diagrams are useful for illustrating the .... of an object, its key parts and how they are related to each other As a formatting aid, color can provide better structure and meaning to a screen

- ☐ A. Structure
- ☐ B. Flow
- ☐ C. Screens
- ☐ D. None

Answer: Structure (A)

32. How many basic steps are there in interaction design process?

- ☐ A. 3
- ☐ B. 4
- ☐ C. 5
- ☐ D. 6

Answer: 4 (B)

33. What does HTA stand for?

- ☐ A. Hierarchical task analysis
- ☐ B. HTML Application
- ☐ C. Human Tissue Authority
- ☐ D. Human task analysis

Answer: Hierarchical task analysis (A)

34. In virtual reality which of the senses cannot currently be portrayed?

- ☐ A. Sight
- ☐ B. Touch
- ☐ C. Smell
- ☐ D. Hearing

Answer: Smell (C)

35. Identify from among the following the attribute of usability.

- ☐ A. Learnability
- ☐ B. Usefulness
- ☐ C. Generalizability
- ☐ D. Subjective satisfaction

Answer: Learnability (A)

36. A persona in the context of goal-oriented interaction design ……….

- ☐ A. is used to role-play through an interface design
- ☐ B. is a real person
- ☐ C. represents a particular type of user
- ☐ D. should represent an average user

Answer: represents a particular type of user (C)

37. The name of the document should be shown on the application's ……………...

- ☐ A. menu bar
- ☐ B. title bar
- ☐ C. tool bar
- ☐ D. status bar

Answer: title bar (B)

38. When software is poorly designed, the penalties are:

- ☐ A. More time to learn how things work and get things done
- ☐ B. More errors in getting things done
- ☐ C. Potential users will buy your competitor's product
- ☐ D. All of the above

Answer: All of the above (D)

39. The most important factor leading to the development of usable software is:

- ☐ A. An understanding of user needs
- ☐ B. The right development team
- ☐ C. In-house design standards
- ☐ D. Early usability testing

Answer: An understanding of user needs (A)

40. Post-test questionnaires (conducted after a usability test) are particularly useful for measuring ....

- ☐ A. Safety
- ☐ B. Efficiency
- ☐ C. Learnability
- ☐ D. User satisfaction.

Answer: User satisfaction. (D)

41. A pluralistic walkthrough .....

- ☐ A. Is usually conducted at the end of the development process.
- ☐ B. Is often conducted with low-fidelity designs.
- ☐ C. Requires having several alternate designs.
- ☐ D. Requires a fully functional prototype.

Answer: Requires having several alternate designs. (C)

42. Providing accelerators (e.g. keyboard shortcuts) mostly addresses

- ☐ A. Utility.

- ☐ B. Efficiency
- ☐ C. Learnability
- ☐ D. Attitude (or likeability)

Answer: Efficiency (B)

43. A method that does not require human participants serving as test users is the

- ☐ A. Usability test.
- ☐ B. Pluralistic walkthrough.
- ☐ C. Rubin's comparison test.
- ☐ D. Heuristic evaluation.

Answer: Heuristic evaluation. (D)

44. The cognitive walkthrough mainly evaluates a product's

- ☐ A. Utility.
- ☐ B. Efficiency
- ☐ C. Learnability
- ☐ D. Likeability

Answer: Learnability (C)

45. The process of forming general concept definitions from examples of concepts to be learned.

- ☐ A. Deduction
- ☐ B. Abduction
- ☐ C. Induction
- ☐ D. Conjunction

Answer: Induction (C)

46. A user-centered approach is characterized by ALL these elements EXCEPT for which one of the following?

- ☐ A. Considers users' tasks and goals from inception through development
- ☐ B. Uses a linear lifecycle model to clearly delineate tasks
- ☐ C. Is based on empirical measurements of user performance
- ☐ D. Is developed via an iterative design process

Answer: Uses a linear lifecycle model to clearly delineate tasks (B)

47. Which of the following best describes what a conceptual model is used for?

- ☐ A. Outlines the possible applications and prerequisite concepts for a product
- ☐ B. Provides a diagram or prototype that embodies the design concept
- ☐ C. Describes an abstraction or metaphor of the user interface
- ☐ D. Defines the mappings between concepts and affinity diagrams

Answer: Describes an abstraction or metaphor of the user interface (C)

48. Which of the following is NOT a lifecycle model of software development?

- ☐ A. Waterfall
- ☐ B. Spiral
- ☐ C. Star

- ☐ D. Cluster

Answer: Cluster (D)

49. A central problem with the waterfall model is that:

- ☐ A. It does NOT allow for iterative design with user feedback
- ☐ B. It does NOT allow for changes in requirements that ensue during development
- ☐ C. It does NOT consider software designers' work practices
- ☐ D. All of the above

Answer: All of the above (D)

50. Which of the following is NOT true of the usability engineering lifecycle model?

- ☐ A. In this model, usability goals are integrated into all phases of design
- ☐ B. Both qualitative and quantitative goals are considered during design
- ☐ C. The practices that correspond to this model are very cost effective
- ☐ D. All of the above

Answer: The practices that correspond to this model are very cost effective (C)

51. Which of the following is NOT a primary reason for doing requirements analysis?

- ☐ A. To translate prototypes into requirements for subsequent development
- ☐ B. To ensure the clarity and specificity of communication about needs
- ☐ C. To attempt to avoid future usability problems and user frustration
- ☐ D. To evaluate the functions of a system during testing

Answer: To evaluate the functions of a system during testing (D)

52. The very best kind of "Help" is:

- ☐ A. Online tutorials
- ☐ B. Online documentation
- ☐ C. Reference manuals
- ☐ D. Needing none at all

Answer: Needing none at all (D)

53. What should you never do during usability testing?

- ☐ A. Assure the participants they are not the subject of the test
- ☐ B. Keep the testing situation as ambiguous as possible
- ☐ C. Ask the participants to talk about what they are thinking
- ☐ D. Start out by showing the participants how the software works

Answer: Start out by showing the participants how the software works (D)

54. What is the principal interaction mode for a Microsoft Kinect?

- ☐ A. Haptic Interface
- ☐ B. Mouse Pointer
- ☐ C. Exploring and Browsing
- ☐ D. Gesture and Body Movements

Answer: Gesture and Body Movements (D)

55. What are the goals of a good design?

- ☐ A. Safety
- ☐ B. Utility
- ☐ C. Efficiency
- ☐ D. All of the above

Answer: All of the above (D)

56. Which of the following questionnaire designs are particularly useful for exploratory studies?

- ☐ A. Closed questions
- ☐ B. Hypothetical questions
- ☐ C. Questions with mutually exclusive options
- ☐ D. Open-ended questions

Answer: Open-ended questions (D)

57. Why is prototyping essential?

- ☐ A. To get quick feedback on the product/application
- ☐ B. Experiment with multiple alternatives
- ☐ C. It saves money and effort
- ☐ D. None of the above

Answer: To get quick feedback on the product/application (A)

58. What is the benefit of good design?

- ☐ A. Positive effect or performance
- ☐ B. Success
- ☐ C. Both a & b
- ☐ D. None

Answer: Both a & b (C)

59. The basic principles underlying user-centric software design are:

- ☐ A. Relatively new
- ☐ B. Based on trial and error
- ☐ C. More art than science
- ☐ D. Derived from empirical data regarding human performance characteristics

Answer: Derived from empirical data regarding human performance characteristics (D)

60. After determining what you want your application to do, the best next step in software development is to:

- ☐ A. Establish standards for detail design
- ☐ B. Perform task analysis
- ☐ C. Allocate system functions
- ☐ D. Get to know your target users

Answer: Perform task analysis (B)

61. User-centric software development requires the talents and participation of:

- ☐ A. Programmers

- ☐ B. User Interface Designers & Graphic Artists
- ☐ C. Instructional Materials Developers
- ☐ D. All of the above

Answer: All of the above (D)

62. The single best predictor of a software application's usability is its:

- ☐ A. Predictability
- ☐ B. Self-evidency
- ☐ C. Efficiency
- ☐ D. Effectiveness

Answer: Self-evidency (B)

63. In the earliest stages of interface design, the best strategy for the use of color is:

- ☐ A. Use color to focus attention and show relationships
- ☐ B. Use only a few colors
- ☐ C. Avoid saturated reds and blues
- ☐ D. Use no color at all

Answer: Use no color at all (D)

64. To satisfy novice and expert users, the best strategy for label and field alignment is:

- ☐ A. Right align labels and left align fields
- ☐ B. Left align both fields and labels
- ☐ C. Left align labels and stagger fields
- ☐ D. Any of the above, depending on circumstances

Answer: Right align labels and left align fields (A)

65. An important first step in designing a Web site is to:

- ☐ A. Choose site colors
- ☐ B. Identify target user groups
- ☐ C. Prototype the home page
- ☐ D. Develop form filling requirements

Answer: Identify target user groups (B)

66. Usability testing for a web site can be performed optimally with:

- ☐ A. An initial list of potential functions
- ☐ B. Human task flow diagrams
- ☐ C. Detailed screen designs
- ☐ D. All of the above

Answer: Detailed screen designs (C)

67. An expert review is:

- ☐ A. Difficult to perform
- ☐ B. Relatively quick to do
- ☐ C. Representative of real users
- ☐ D. None of the above

Answer: Relatively quick to do (B)

68. Multimedia should be used:

- ☐ A. As much as possible to impress users
- ☐ B. Never because of download times
- ☐ C. Sparingly to support the intent of the site
- ☐ D. Only for audio and not video

Answer: Sparingly to support the intent of the site (C)

69. To improve the time it takes to scan a web page, text should be:

- ☐ A. Centered
- ☐ B. Left aligned
- ☐ C. Right aligned
- ☐ D. None of the above

Answer: Left aligned (B)

70. To organize information on a web page, grouping can be used to differentiate related and unrelated information by:

- ☐ A. Inserting a blank line & White space between groups
- ☐ B. Indenting to show a sub-grouping
- ☐ C. Putting a panel or box around related information
- ☐ D. All of the above

Answer: All of the above (D)

71. Items on a web page can be sequenced based on each of the following except:

- ☐ A. Alphabetical even if alphabet not known to users
- ☐ B. Frequency of use by typical users
- ☐ C. Logic or task flow of typical users
- ☐ D. Importance

Answer: Alphabetical even if alphabet not known to users (A)

72. In general, when writing for the web one should do all of the following except:

- ☐ A. Avoid paragraphs
- ☐ B. Write in active voice
- ☐ C. Use computer terminology
- ☐ D. Use correct tone & Use words consistently

Answer: Avoid paragraphs (A)

73. Color should not be used in web page design:

- ☐ A. To show relationships
- ☐ B. As a code
- ☐ C. In many hues
- ☐ D. To draw attention

Answer: As a code (B)

74. Red text should not be used on a blue background because:

- ☐ A. They are not aesthetic together
- ☐ B. It will be fuzzy to read
- ☐ C. These are not browser safe colors
- ☐ D. All of the above

Answer: It will be fuzzy to read (B)

75. .... is the best example for design.

- ☐ A. View
- ☐ B. Model
- ☐ C. Analyzing
- ☐ D. None of the above

Answer: View (A)

76. Study of how computer works together and to satisfy for accurate results is known as

- ☐ A. Good design
- ☐ B. HCI
- ☐ C. Bad design
- ☐ D. None of the above

Answer: HCI (B)

77. .... & .... are the main functions of GUI.

- ☐ A. Pointing & Selecting
- ☐ B. Selecting & Executing
- ☐ C. Pointing & Editing
- ☐ D. None of the above

Answer: Pointing & Selecting (A)

78. .... is an intermediate between users and computer.

- ☐ A. Keyboard
- ☐ B. Mouse
- ☐ C. Monitor
- ☐ D. Both A & C

Answer: Both A & C (D)