

Human Computer Interaction HCI Sheet-1-SWE-Level 4-2021-

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- 1) What is an important advantage of command-line interfaces over graphical user interfaces?
 - ☐ The mental load for the user is low (recall over recognition).
 - ☐ **The user is not distracted by an abundance of menus, icons, toolbars, etc.**
 - ☐ They work well for repetitive jobs like payroll processing or billing.
 - ☐ Complex operations can be performed more efficiently, e.g. through command languages.
- 2) Why should modal dialog boxes be used with care?
 - ☐ **They are very disruptive and prevent users from continuing their task.**
 - ☐ They have high resource requirements on the computer system.
 - ☐ They frequently lead to application or system crashes.
 - ☐ They are difficult to program because they have to work across applications.
- 3) Under which circumstances is the use of CAPITAL LETTERS appropriate in screen layout and design?
 - ☐ Never, because text in capital letters is more difficult to read.
 - ☐ To better distinguish text from the numbers when text and numbers are mixed.
 - ☐ **To emphasize important items like field names, titles, or main categories.**
 - ☐ It should be used as often as possible because it reduces the number of bits required for the representation of characters.
- 4) 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?
 - ☐ In the long run, it might put software developers out of work.
 - ☐ **The generated code can be inefficient and unnecessarily complex.**
 - ☐ Automatically generated code is very difficult to port across different platforms.
 - ☐ The generated code typically contains more errors than code written by programmers.
- 5) Out of the following user interface prototypes, which one has the lowest fidelity?
 - ☐ A simulation of the interactive user interface, e.g. implemented in Visual Basic.
 - ☐ A storyboard presentation.
 - ☐ **A textual description in a few paragraphs.**
 - ☐ A series of drawings prepared with a graphics package.
- 6) In which phase of the UI design cycle should evaluation be performed?
 - ☐ Throughout the design cycle.
 - ☐ After the elicitation of user requirements.
 - ☐ **After prototyping.**
 - ☐ After implementation
- 7) Which usability testing method can be applied before the actual design of the product or system begins?

- ☐ Contextual inquiry.
- ☐ **Focus groups.**
- ☐ Heuristic evaluation.
- ☐ Co-discovery.

- 8) What is an important purpose of developing prototypes for a user interface?
- ☐ Developers use them to get familiarized with the tools they use.
 - ☒ **Users can give early feedback, which can be more easily integrated into the design process.**
 - ☐ Prototypes can be used for marketing purposes long before the actual product is available.
 - ☐ This way the user interface design can be completely separated from the development of the underlying system.
- 9) 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?
- ☐ The bandwidth of the auditory channel is more limited than that of the visual channel.
 - ☐ Computers would have to understand many different languages and dialects.
 - ☒ **It requires speech recognition by computers, which as of now is too error-prone and consumes too many resources.**
 - ☐ Speech output by computers sounds rather unnatural.
- 10) Why have menus become a practically indispensable part of current user interfaces?
- ☒ **They allow an efficient formulation of complex input commands.**
 - ☐ They minimize cursor movements, thus making input actions more efficient.
 - ☐ They provide quick access to frequently used commands (recognition over recall).
 - ☐ They can be adapted easily to the specific preferences of individual users.

1. _____ 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

2. _____ A sign that was caused by the thing to which it refers.

- A) **Icons** B) Windows C) Screens D) Index

3. _____ A sign that may be completely arbitrary in appearance

- A) Symbol **B) Windows** C) Screens D) None

4. _____ 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

5. _____ is use to identify links that may be followed.

- A) Navigational **B) Horizontal** C) Vertical D) None

6. _____ is to illustrate items mentioned in the text.

- A) Organizational. **B) Navigational** C) Screens D) Representational

7. _____ is used to depict relationships among items mentioned in text.

- A) Organizational.** B) Navigational C) Representational D) None

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

- A) Explanative** B) Directive C) Exclusive D) Decorative

9.. is provide visual appeal and emphasis

- A) Decorative** B) Explanative C) Directive D) Non

10 .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
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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**

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

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**

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

- (a) Visibility
- (b) Mapping
- (c) An affordance
- (d) Feedback**

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) Logical constraint

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.

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.**

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.

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**

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

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) An action reifies a task into a goal
- (c) A goal is composed of a set of actions that accomplish a task
- (d) None of the above**

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13- How many basic steps are there in interaction design process?

a. 4 **b. 5** c. 6 d. 3

14- What does HTA stand for?

a. Hierarchical task analysis b. HTML Application c. Human Tissue Authority d. Human task analysis

15- In virtual reality which of the senses cannot currently be portrayed? Select one:

a. Sight b. Touch **c. Smell** d. Hearing