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Midterm-13
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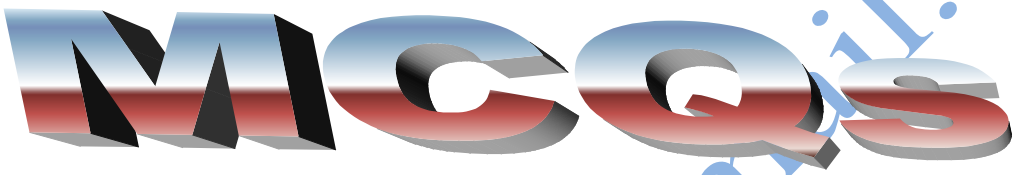


1. _____ rely on learned conventions, like the use of red for warning, the use of certain kinds of signals for danger, and the use of the smiley face to represent happy emotions.

Culture constraints (pg106)

Emotional constraints
Logical constraints
Physical constraints

2. For more accurate positioning, systems with touch-sensitive surface often employ a _____

Eyegaze
Cursor keys

Stylus (pg 118)

Track point

3. _____ is concerned with the understanding of interactions among humans and other elements of a system like easy-to-use interfaces to machines and equipment.

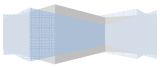
Software engineering
Human information processing 34
Communication
Ergonomics

4. Which of the following is Haptic Perception?

Hear

Touch (pg 71)

Smell
Taste



5. _____ is required when someone is required to make a prediction about a particular state of affairs.
Image model

Mental model (pg 94)

Initial model
Spiral model
6. The _____ model should match the _____ model.
User, conceptual
Conceptual, mental 95
Mental, central
Conceptual, central
7. Which of the following is a long-term individual difference?
Sex
Fatigue 65
Color
Age
8. We are deficient in our development _____, not in our development _____ (respectively).

Process, Tools (pg 23)

Process, Methodology
Tools, Methodology
Process, Procedure
9. _____ refers to the way a system supports users in carrying out their tasks.

Efficiency (pg 31)

Effectiveness
Safety
Usability
10. _____ refers to help users avoiding the danger of carrying out unwanted actions accidentally.
Efficiency
Effectiveness

Safety (pg 31)

Usability
11. It is observed that around 63% of software projects exceed their cost estimates due to:
A. Frequent requests for changes from users
B. Overlooked tasks
C. Users' lack of understanding of their own requirements
D. Insufficient user-analyst communication and understanding
Only A
Only D
A and C

A, B, C and D (pg 142)

12. The persona is created as an explicit and rhetorical example of whom not to design for, refers to _____ persona.

Primary
Secondary
Supplement

Negative (pg 159)

13. Ahsan is trying to get expertise in using computer but he did not use the Microsoft Office program for months and forget significant portions he learned. Now in which category of users he resides?

Not Beginners (pg 164)

Beginners
Intermediates
Experts

14. Ali is a designer, he spends time in reading gathered facts about user's behaviors and their environment then analyzes these facts to uncover the design implications and made assumprions. It is called?

Context
Partnership

Interpretation (pg 177)

Focus

15. What do you procrastinate on? is type of _____.

Priorities

Avoidance (pg 183)

Exceptions
Preference

16. A software developer has an idea/plan to design a personal website. In his site, he will share his personal experiences /data of his adventures trips which can be informative for anyone. Persona of such website will be:

Elastic user design
Exceptional design
Edge case design

Self Referential design 188

17. The transitions on the Interaction Framework;

Are unimportant

Simply link the whole system together 100

Pass messages around the system
Represent the translations required from one component to the next

18. Which receptor of the eye is highly sensitive to light_____.

Cornea
Cones

Rods (pg 56)

Cornea & cones

19. Few persons are talking to each other in a room; In another room some one was working and go to get some conversation of those person is the example of _____.

Null attention

Voluntary attention

Involuntary attention 79

Revolution attention

20. Problem solving, planning, reasoning and decision-making are all cognitive processes involving _____.

Complex cognition

Experiential cognition

Reflective cognition (pg88)

Simple cognition

1. The term mental model was first developed in the early 1640s by _____

Johnson-Laird

Donald Norman

Kenneth Craik (pg93)

John Corman

2. _____ rely on learned conventions, like the use of red for warning, the use of certain kinds of signals for danger, and the use of the smiley face to represent happy emotions.

Physical constraints

Logical constraints

Culture constraints (pg 106)

Emotional constraints

3. A designer is designing multiple menu for an application, menu items in each menu should:

Have meaningful names

May be in any order

Should be logically grouped

Meaningful names and logically grouped 127

4. _____ like freedom. They think on a problem dynamically and take rational decisions and they can find many solutions that may not exist before computer species.

Computers

Human Beings (pg 18)

Programs

Machines

5. Ayesha is doing a conversation with Tina on treats to Information technology. Which cognitive mode is activated?

Reflective cognition
Information cognition 48
Execution cognition
Experiential cognition
6. Drive a vehicle while holding a conversation with a passenger is the example of _____ .
Focused attention
Divided attention (pg 78)
Voluntary attention
Involuntary attention
7. _____ is/are the process of selecting things to concentrate on, at a point in time, from the range of possibilities available.
Perception and recognition
Attention (pg 76)
Learning
Knowledge
8. _____ are areas of the screen that behave as if they were independent terminals in their own right.

Pointers
Menus

Windows (pg 130)

Icons
9. _____ refers to how good a system at doing what it is supposed to do.
Safety
Usability
Efficiency

Effectiveness (pg 31)

10. _____ refers to the way a system supports users in carrying out their tasks.
Effectiveness
Safety
Usability

Efficiency (pg 31)

11. Interactive features, safety features and reliability are all examples of the _____ requirements of a system.
Functional
Non-functional
Multi-functional
Uni-functional
12. _____ model is famous for risk analysis.

Waterfall

Spiral (pg 150)

RAD

Incremental
13. Which of the following best describes a stakeholder?
A. A person who uses an interactive computer system
B. A person who is affected by the success or failure of an interactive computer system
Only A
Only B
Both A and B 168
Not A and Not B
14. What do you enjoy most about your job (or lifestyle) is an example of _____.

Avoidance
Motivation (pg 183)
Exceptions
Attitude-oriented questions
15. _____ represents the Early-phase of ethnographic interviews.

Clarify user roles and behaviors.
Confirm patterns of use.
Clarifying questions.

Focused on domain knowledge. (pg 181)

16. As a designer you get usage patterns and the goals associated with users that drive the creation of personas in the _____ phase.
Requirements definition
Framework definition

Modeling Phase (pg 159)

Refinement
17. Which of the following is proportional to the amplitude of the sound where the frequency remains constant?
Pitch

Loudness (pg70)

Timber
Rhythm
18. Computers are embedded i.e. in Refrigerator, Alarm clock, Oven etc.
_____ is received, when a computer is crossed with a camera.
Computer 12
Radio navigation
Analog camera
Camera
19. The eye is a mechanism for receiving light and transforming it into _____ energy.

Electrical energy (pg 55)

Heat energy
Potential energy
Kinetic energy

20. In understanding the nature of usability, the way or approach in which the user and the idiom interact is called _____.

Strategic (pg 143)

Tactical

Non- Technical
Technical

22. Write types of non-user goals. 02

Answer: Types of non-user goals
- Customer goals
- Corporate goals
- Technical goals (pg 193)

23. Suppose you are a project designer, what do you think that qualitative research can help in progress of design of projects or product design? 03
Answer: For any project designer, Qualitative research is the most important for any product design. Because Product is the main tasks to design and itself is the project. So both project and design of the concerned products are the most important to research the qualitative and important things.

24. Being HCI specialist & designer, What are the best approaches to design interactive and effective user interaction and interface, that in turn improve the software?03
Answer: HCI specialists test design ideas on real users and use formal evaluation techniques to replace intuition in guiding design. This constant reality check improves the final product. (pg 21)

25.In your view point, How could speech recognition system be problematic in social and organizational point of view, explain by example.05
Ans: Speech recognition
Speech recognition is a promising are of text entry, but it has been promising for a number of years and is still only used in very limited situations. However, speech input suggests a number of advantages over other input methods:

• Since speech is a natural form of communication, training new users is much easier than with other input devices.
• Since speech input does not require the use of hands or other limbs, it enables operators to carry out other actions and to move around more freely.
• Speech input offers disabled people such as the blind and those with severs motor impairment the opportunities to use new technology.

26. Every model is a combination of steps of operations & ordering of activities on different levels. Star lifecycle model is different from waterfall model and RAD model in respect of ordering of activities, How? 05.
Answer: Page 159 Handout

21. What is the most important thing to design in the user's conceptual model?02
Answer: "The most important thing to design is the user's conceptual model. Every thing else should be subordinated to making that model clear, obvious, and substantial. That is almost exactly the opposite of how most software is designed." (David Liddle) (pg101)

22. Suppose a company is planning to introduce new shampoo named "ABC". Is it sufficient to make only 1 type of shampoo for public? Yes/ No, justify your answer? **02**
Ans: No its is not sufficient type.

23. Abdullah is a designer of interactive digital products. To make useful and easy to use digital products or computer system, which three key characteristics of interaction design he will use according to user centered approach.03
Answer:
• Early focus on users and tasks: This means first understanding who the users will be by directly studying their cognitive, behavioral, anthropomorphic, and attitudinal characteristics. This required observing users doing their normal tasks, studying the nature of those tasks, and then involving users in the design process.
• Empirical measurement: early in development, the reactions and performance of intended users to printed scenarios, manuals, etc, is observed and measured. Later on, users interact with simulations and prototypes and their performance and reactions are observed, recorded and analyzed.
• Iterative design: when problems are found in user testing, they are fixed and then more tests and observations are carried out to see the effects f the fixes. This means that design and development is iterative, with cycles of "design, test, measure, and redesign" being repeated as often as necessary. (pg 172)

24.Being HCI specialist & designer, What are the best approaches to design interactive and effective user interaction and interface, that in turn improve the software?03
Answer: HCI specialists test design ideas on real users and use formal evaluation techniques to replace intuition in guiding design. This constant reality check improves the final product. (pg21)

25. Norman's Model of interaction consists of seven steps, among them there is a step named "perceiving the state of world", explain this step with the help of example.05
Answer: Donald Norman's Model of interaction. In which user chooses a

goal, formulate a plan of action, which is then executed at the computer interface. When the plan, or part of the plan has been executed, the user observes the computer interface to evaluate the result of the execution plan, and to determine further actions. The two major parts, execution and evaluation, of interactive cycle are further subdivided into seven stages, where each stage is an activity of the user. Seven stages of action are shown in figure. To understand these we see an example, which was also used by Norman. Imagine you are sitting reading as evening falls. You decide you need more light; that is you establish the goal to get lighter. Form there you form an intention to switch on the desk lamp, and you specify the actions required to reach over and press the lamp switch. If some one else is closer, the intention may be different-you may ask them to switch on the light for you. Your goal is the same but the intention and actions are different. When
you have executed the action you perceive the result, either the light is on or it isn't and you interpret this, based on your knowledge of the world. For example, if the light does not come on you may interpret this as indicating he bulb has blown or the lamp is not plugged into the mains, you will formulate the new state according to the original goals – is there is now enough light? It so, the cycle is completed. It not, you may formulate a new intention to switch on the main ceiling light as well. (pg122)

26. Suppose you are a product designer. You are required to write all steps which are used in process of constructing personas.05

Answer: Creating believable and useful personas requires an equal measure of detailed analysis and creative synthesis. A standardized process aids both of these activities significantly.

Process of constructing personas involve following steps:

1. Revisit the persona hypothesis
2. Map interview subjects to behavioral variables
3. Identify significant behavior patterns
4. Synthesize characteristics and relevant goals.
5. Check for completeness.
6. Develop narratives
7. Designate persona types (pg 194)