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Midterm-13

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**MCGQS**

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

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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 assumptions. 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

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**Rods (pg 56)**

Cornea &amp; 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

**Meningful 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)**

Timbre

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

# Subjective

**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 area 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 severe 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 of 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. From 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 the 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? If so, the cycle is completed. If 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)

With Best wishes