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MIT 4th Semester

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Reference Short Questions for Mid TERM EXAMS
CS408 - HUMAN COMPUTER INTERACTION

Q.No.1 Define Attention (Page#76)

Answer:-
Attention is the process of selecting things to concentrate on, at a point in time, from the range of possibilities available

Q.No.2 Define Recognition

Answer:-
Recognition refers to act of recognizing or the state of being recognized, identification of something as having been previously seen, heard, and known as.

Reference: http://dictionary.reference.com/browse/recognition

Q.No.3 What is the difference between Tertiary and Analogous colors? (Page#64)

Answer:-
These are the colors formed by mixing one primary and one secondary color.
TERTIARY COLORS
Yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green.
Analogous colors are any three colors, which are side by side on a 12 part color wheel, Such as yellow-green, yellow, and yellow-orange. Usually one of the three colors Predominates

Q.No.4 Comment to justify the following statement. (Page#64,115)
"Most users are neither beginners nor experts; instead they are intermediates"
What are the pointing devices? Explain trackball as pointing device?

Answer:-
According to the statement pointing devices will help for the beginner user because we can use to deal easily with requirement. Pointing devices are input devices that can be used to specify a point or path in a one-, Two- or three-dimensional space and, like keyboards, their characteristics have to be considering in relation to design needs.
Pointing devices are as follow:
• Mouse
• Touch pad
• Track ball
• Joystick
• Touch screen
• Eye gaze
Trackballs is other alternatives. The user is presented with a cursor on the screen that is controlled by the input device.

Q.No.5 Consider the vertical scroll bar of a web browser or word processor. For each of Norman's five principles below, give one way that the scrollbar uses the principle for effective design. Describe the interface model of the scroll bar in one sentence. (Page#104-108)

Affordance:
Constraints:
Mapping:
Visibility:
Feedback:

Answer:-
As consider the vertical scroll bar of a web browser or word processor. According to the Norman's principles we design the scrollbar uses the principle for effective design that users should see and do when carrying out their tasks using an interactive product. Here we briefly describe which is given:-

Affordance is a term used to refer to an attribute of an object that allows people to know How to use it.

For example, a mouse button invites pushing by the way it is physically constrained in its plastic shell. At a very simple level, to afford means "to give a clue." When the affordances of a physical object are perceptually obvious it is easy to know how to interact with it

Constraints:
The design concept of constraining refers to determining ways of restricting the kind of user interaction that can take place at a given moment. There are various ways this can be achieved. An Interface design in graphical user interfaces is to deactivate certain menu options by shading them, thereby restricting the user to only actions permissible at that stage of the activity.

- **Physical constraints**
  Physical constraints refer to the way physical objects restrict the movement of things.

- **Logical constraints**
  Logical constraints rely on people's understanding of the way the world works

- **Culture constraints**
  Culture constraints 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

Mapping:
This refers to the relationship between controls and their effects in the world. Nearly all artifacts need some kind of mapping between controls and effects, whether it is a flashlight, car, power plant, or cockpit. An example of a good mapping between controls is effect is the up and down arrows used to represent the up and down movement of the cursor, respectively, on a computer keyboard.

Visibility:
The more visible functions are, the more likely users will be able to know what to do next. In contrast, when functions are "out of sight," it makes them more difficult to fid and knows how to use. Norman describes the controls of a car to emphasize this point. The controls for different operations are clearly visible (e.g., indicator, headlights, horn, hazard warning lights), indicating what can be done.

Feedback

Related to the concept of visibility is feedback. This is best illustrated by an analogy to what everyday life would be like without it. Imagine trying to play a guitar, slice bread using knife, or write a pen if none of the actions produced any effect for several seconds. There would be an unbearable delay before the music was produced, the bread was cut, or the words appeared on the paper, making it almost impossible for the person to continue with the next strum, saw, or stroke.

Feedback is about sending back information about what action has been done and what has been accomplished, allowing the person to continue with the activity. Various kinds of feedback are available for interaction design—audio, tactile, verbal, visual, and combinations of these.

Q.No.6 As a product designer what you need to do for constructing personas? Write all steps: (Page#14)

Answer:-

Being a product designer we use to do constructing personas 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

Q.No.7 You are product designer. You are making plan to introduce a shampoo. Just one type of shampoo for every user! Is this plan good or not? Answer yes or no, and support your answer.

Answer:-

No! it is not a good plan and being product designer, we are making plan to introduce a shampoo for every one, It also includes performance things like how well it cleans, what the foam looks and feels like and how irritating it will be. Often consumer testing is employed to help with determining these characteristics.

The basic ingredient in a shampoo formulation is as follows for the betterment of gathering market.

Water: It helps dilute the detergents, makes the formula easier to spread and reduces irritation. It also keeps the formula inexpensive

Detergents: The next most abundant ingredients in a shampoo. These surfactants are the primary cleansing ingredients and make up about 10% – 15% of the formula.
Foam Boosters: Other types of surfactants are added to shampoos to improve the foaming characteristics of the formulation. These compounds usually botanies or alkanolamides, help increase the amount of foam and the size of the bubbles.

Thickeners: To some extent the secondary detergents make shampoo formulations thicker. Simply adding salt can also increase shampoo thickness.

Conditioning agents: Some materials are added to shampoos to offset the harsh effect of surfactants. Typical conditioning agents include polymers, silicones, and quaternary agents

Preservatives: Any formula that contains water holds the potential to be contaminated by bacteria and other microbes.

According the statement user should change occasionally if we don't get the build up of just one shampoo to another variety of shampoo

Reference: http://chemistscorner.com/how-shampoos-are-made/

Q.No.8 Norman model focus on which principal of HCI? (Page#63)

Answer:-
MENTAL MODEL

Q.No.9 briefly explains physical constraints? (Page#106)

Answer:-
Physical constraints refer to the way physical objects restrict the movement of things.
For example, the way external disk can be placed into a disk drive is physically constrained by its shape and size, so that it can be inserted in only one way. Likewise, keys on a pad can usually be pressed in only one way.

Q.No.10 What user-centered approach means? (Page#172)

Answer:-
The user-centered approach means that the real users and their goals, not just technology, should be the driving force behind development of a product.

Q.No.11 usefulness of metaphor

Answer:-
There are several dimensions along which the usefulness of a metaphor can be evaluated. A good metaphor, for example, might help the developers understand and agree on the functionality of the system they are designing.

Reference: http://reports-archive.adm.cs.cmu.edu/anon/isri/CMU-ISRI-03-100.pdf

Qno.12 Which includes in research phase of goal-directed design model? (Page 157)

Answer:-
Goal-directed approach to design is the premise that product must balance business and engineering concerns with user concerns. You begin by asking, "What do people desire?" then you ask, "of the things people desire, what will sustain a business." And finally you ask, "Of the things people desire, that will also sustain the business, what can we build?" a common trap is to focus on technology while losing the sight of viability and desirability.

Qno.13 How customer goal are different from corporate goal with respect to Non User Goal? (Page#193)

Answer:-
Customer goals, corporate goals, and technical goals are all non-user goals. Typically, these goals must be acknowledged and considered, but they do not form the basis for the design direction. Although these goals need to be addressed, they must not be addressed at the expense of the use

Q.No.14 Why dialog boxes are used in WIMP explain it with an example (Page#131)

Answer:-

There are also many additional interaction objects and techniques commonly used in WIMP interfaces, some designed for specific purposes and others more general. Our discussion will cover the toolbars, menus, buttons, palettes and dialog boxes. Together, these elements of the WIMP interfaces are called widgets, and they comprise the toolkit for interaction between user and system.

Example

Normal pointer cursor maybe an arrow, but change to change to cross-hairs when drawing a line. Cursors are also used to tell the user about system activity.

Q.No.15 How to construct persona (step)

Answer:-

1. Define the problem
2. Identify the people
3. Get into the field

Reference: http://chopsticker.com/2007/09/13/a-10-step-summary-of-how-to-create-personas/

Q.No.16 How can you improve a website interface of a university through GUI (Page#145)

Answer:-

As the university matured, In the move from command-line to graphical user interface, design and usability also became involved in the process, though often only at the end, and often only affecting visual presentation. Today common practice includes simultaneous coding and design followed by bug and user testing and then revision.

University improve the website interface through GUI which is given

- Padded block links
- Typesetting buttons
- Using contrast to manage focus
- Using color to manage attention
- Using color to manage attention
- Letter spacing
- Auto-focus on input
- Hover controls

http://uxdesign.smashingmagazine.com/2008/12/15/10-useful-techniques-to-improve-your-user-interface-designs/

Q.No.17 Why do you prefer command line interface? (Page#246)

Answer:-

The command-line interface forces an even more expensive excise budget on the user: He must first memorize the commands. Also, he cannot easily configure his screen to his own personal requirements. The excise of the command-line interface becomes smaller only after the user has invested significant time and effort in learning it.

Q.No.18 Where do you use check boxes and radio buttons? (Page#133)

Answer:-

Radio buttons:

Buttons can also be used to toggle between two states, displaying status information such as whether the current font is italicized or not in a word processor or selecting options on a web form.

Check boxes:

It a set of options is not mutually exclusive, such as font characteristics like bold, italic and underlining, and then a set of toggle buttons can be used to indicate the on/off status of the options.

Q.No.19 How do use modeling phase of software development while selecting persona. (Page#187)

Answer:-

The persona is a powerful, multipurpose design tool that helps overcome several problems that currently plague the development of digital products. Personas help designers"

• Determine what a product should do and how it should behave. Persona goals and tasks provide the basis for the design effort.

• Communicate with stakeholders, developers, and other designers. Personas provide a common language for discussing design decisions, and also help keep the design centered on users at every step in the process.

• Build consensus and commitment to the design. With a common language comes a common understanding. Personas reduce the need for elaborate diagrammatic models because, as it is found, it is easier to understand the many nuances of user behavior through the narrative structures that personas employ.

• Measure the design's effectiveness. Design choices can be tested on a persona in the same way that they can be show to a real user during the formative process. Although this doesn't replace the need to test on real users. It provides a powerful reality check tool for designers trying to solve design problems. This allows design iteration to occur rapidly and inexpensively at the whiteboard, and it results in a far stronger design baseline when the time comes to test with real users.

• Contribute to other product-related efforts such as marketing and sales plan. It has been seen that clients repurpose personas across their organization, informing marketing campaigns, organizational structure, and other strategic planning activities. Business units outside of product development desire sophisticated knowledge of a product's users and typically view personas with great interest.

Q.No.20 Describe Norman's interaction framework with reference to the action and evaluation cycle. (Page#122)

Answer:-

The interaction framework breaks the system into four main components, as per 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

Gulf of execution and evaluation

Norman also describes the two gulfs, which represent the problems that are caused by some interfaces to their users.

Gulf of execution

Gulf of execution is the difference between the user's formulation of the actions to reach the goal and the actions allowed by the system. If the action allowed by the system correspond to those intended by the user, the interaction will effective. The interface should therefore aim to reduce this gulf of execution.

Gulf of evaluation

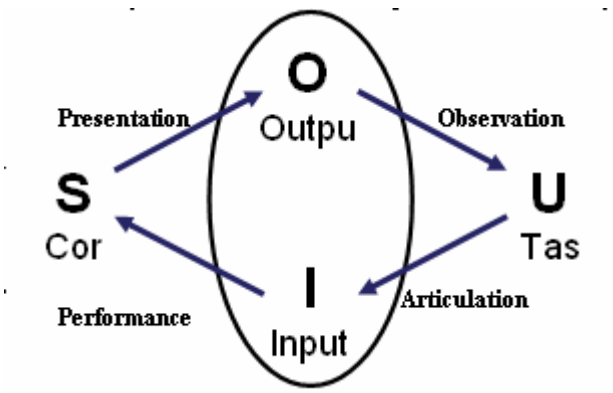
The gulf of evaluation is the distance between the physical presentation of the system state and the expectation of the user. If the user can readily evaluate the presentation in terms of his goal, the gulf of evaluation is small. The more effort that is required on the part of the user to interpret the presentation, the less effective the interaction

Q.No.21 what is the gulf of evaluation and gulf of execution? Your answer must also be illustrated with a diagram (Page#122)

Answer:-

Gulf of execution and evaluation
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Q.No.22 describes the design principles given below with some examples and explains their implications for interface design. Visibility Affordance (Page#104-108)

Answer:-

Visibility:
The more visible functions are, the more likely users will be able to know what to do next. In contrast, when functions are "out of sight," it makes them more

difficult to fid and knows how to use. Norman describes the controls of a car to emphasize this point. The controls for different operations are clearly visible (e.g., indicator, headlights, horn, hazard warning lights), indicating what can be done.

Affordance is a term used to refer to an attribute of an object that allows people to know How to use it.

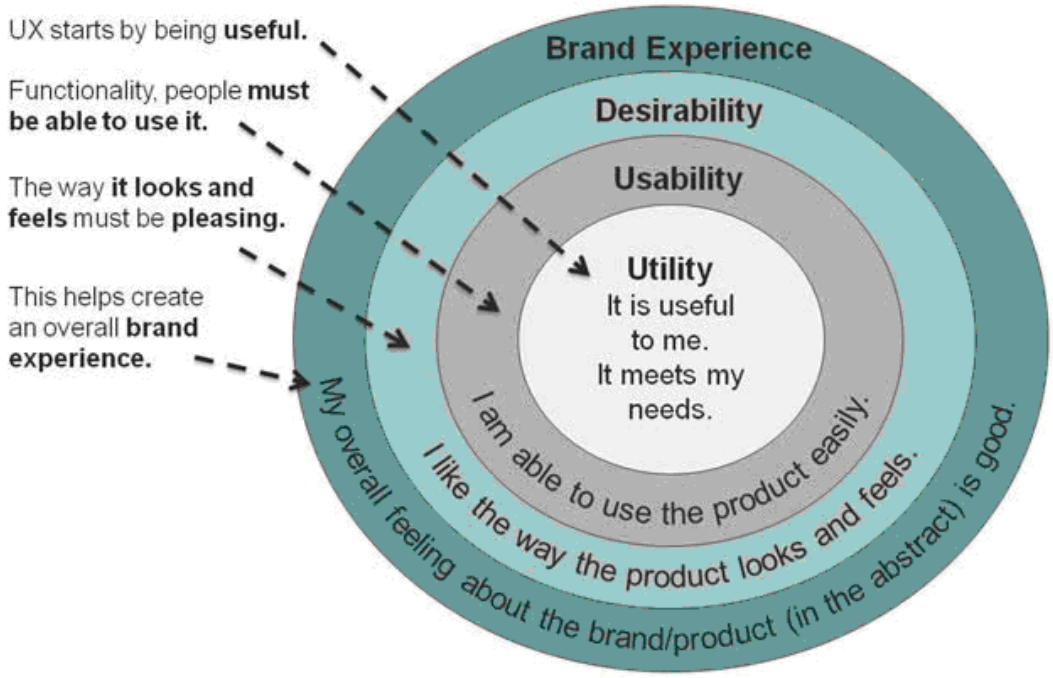
For example, a mouse button invites pushing by the way it is physically constrained in its plastic shell. At a very simple level, to afford means "to give a clue." When the affordances of a physical object are perceptually obvious it is easy to know how to interact with it

Q.No.23 Define usability and user experience. Draw a conceptual diagram that illustrates the relationship between an interface, usability, user experience and the interaction between humans and computers. Provide a brief explanation of this diagram with examples.

Usability User Experience

Answer:-

Usability is a narrower concept than user experience since it only focuses on goal achievement when using a web site. By contrast, user experience is a "consequence of the presentation, functionality, system performance, interactive behaviour, and assistive capabilities of the interactive system". This essentially means that user experience includes aspects such as human factors, design, ergonomics, HCI, accessibility, marketing as well as usability. An alternative way to look at this relationship is by subdividing user experience into utility, usability, desirability and brand experience. This is best illustrated by representing these sub divisions as concentric circles where the innermost circle is the most basic aspect of user experience as **shown in the diagram below:**



Example the credibility of a site that provides health advice will have a massive influence on its overall effectiveness. You might be able to find the information you want quickly. But if you don't trust the source as being credible then the website is not effective for its purpose. This is bad usability

Reference: http://usabilitygeek.com/the-difference-between-usability-and-user-experience/

Q.No.24 Suppose you are a product designer and have to create a product that satisfy broad audience but some "Self-referential design". A user-Centered design issue arises during product development. What are they and how persona resolves them? (Page#186,187)

Answer:-

Being a product designer keeping in the mind before we going to create a product that satisfy board audience in self referential design which are given :

Personas

To create a product that must satisfy a broad audience of users, logic tells you to make it as broad in its functionality as possible to accommodate the most people. This logic, however, is flawed. The best way to successfully accommodate a variety of users is to design for specific types of individuals with specific needs.

Personas also resolve three User-Centered design issues that arise during product development:

- The elastic user
- Self-referential design
- Design edge cases

The elastic user
Although satisfying the user is goal, the term user causes trouble when applied to specific design problems and contexts. Its imprecision makes it unusable as a design tool—every person on a product team has his own conceptions of the user and what the user needs.

Self-referential design
Self-referential design occurs when designers or developers project their own goals, motivations, skills, and mental models onto a product's design. Most "cool" product designs fall into this category: the audience doesn't extend beyond people like the designer, which is fine for a narrow range of products and completely inappropriate for most others. Similarly, programmers apply self-referential design when they create implementation-model products. They understand perfectly how it works and are comfortable with such products. Few non-programmers would concur.

Design edge cases
Another syndrome that personas help prevent is designing for edge cases—those situations that might possibly happen, but usually won't for the target personas. Naturally, edge cases must be programmed for, but they should never be the design focus. Personas provide a reality check for the design.

Q.No.25 Give the two real world example of QWERTY keyboard.

Answer:-

ar keyboard = qwertyHancock('keyboard', 600, 150, 3,
'A3', 'white', 'black', '#f3e939')

Q.No.26 Being a researcher, identify in which phases of ethnographic interviews you Explore, Identify patterns of use and Confirm patterns of use? Briefly explain them. (Page#178)

Answer:-

Being researcher ethnography is term borrowed form anthropology, meaning the systematic and immersive study of human cultures. In anthropology, ethnographic researchers spend years living immersed in the cultures they study and record. Ethnographic interviews take the spirit of this type of research and apply it on a micro level. Rather than trying to understand behaviors and social ritual of an entire culture, the goal is understand the behaviors and rituals of people interacting with individual products.

- Identifying candidates
- The personal hypothesis

Q.No.27 As a HCI specialist, if we design a system with good usability and good user experience, what will be the result? (Page#21)

Answer:-

As a HCI specialist, we design a system with good usability and good user experience we may use basic fundamental difference between the approaches taken by software engineers and human-computer interaction specialists. Human-computer interface specialists are user-centered and software engineers are system-centered. Software engineering methodologies are good at modeling certain aspects of the problem domain. Formal methods have been developed to represent data, architectural, and procedural aspects of a software system. Software engineering approaches deal with managerial and financial issues well. Software engineering methodologies are useful for specifying and building the functional aspects of a software system. Human-computer interfaces emphasize developing a deep understanding of user characteristics and a clear awareness of the tasks a user must perform.

Q.No.28 Being a researcher, what is the need of literature review in research in your point of view? Give brief answer. (Page#171)

Answer:-

In parallel with stakeholder interviews, the design team should review any literature pertaining to the product or its domain. This can and should include product marketing plans, market research, technology specifications and white papers, business and technical journal articles in the domain, competitive studies. Web searches for related and competing products and news, usability study results and metrics, and customer support data such as call center statistics.

Q.No.29 List four kinds of translated input events.

Answer:-

1. Mouse click or double-click
2. Mouse entered or exited component
3. Keyboard focus gained or lost
4. Character typed

Reference: http://groups.csail.mit.edu/graphics/classes/6.831/lectures/L7.pdf

Q.No.30 What is a semantic network? (Page#82)

Answer:-

Semantic memory is structured in some way to allow access to information, representation of relationships between pieces of information, and inference. One model for the way in which semantic memory is structured is as a network. Items are associated to each other in classes, and may inherit attributes from parent classes. This model is known as a semantic network

Q.No.31 if you are spouse to be a software engineer then what u assume about the life cycle of the models? (Page#149)

Answer:-

The traditional view of software engineering characterizes the development of software as Consisting of number of processes and representations that are produced in an essentially linear fashion. This is often called waterfall model, because the output of each process ‘tumbles down’ neatly to the next activity.

Projects involving only a few experienced developers, a simple process would probably be adequate. However, for larger systems involving tens or hundreds of developers with hundreds or thousands of users, a simple process just isn't enough to provide the management structure and discipline necessary to engineer a usable product. So something is needed that will provide more formality and more discipline. Note that this does not mean that innovation is lost or that creativity is stifled. It just means that structured process is used to provide a more stable framework for creativity.

Q.No.32 Why the user are blamed themselves for guilty the insomnious or faults? (Page#97)

Answer:-

User can blamed badly designed objects—constructed so as to lead to misunderstanding—faulty mental models, and poor feedback, no wonder people feel guilty when they have trouble using objects, especially when they perceive that nobody else is having the same problems. The problem is that once failure starts, it soon generalizes by self-blame to all technology. The vicious cycle starts: if you fail at something, you think it is your fault. Therefore you think you can't do that task. As a result next time you have to do the task, you believe you can't so you don't even try. The result is that you can't, just as you thought. You are trapped in a self-fulfilling prophecy.

Q.No.33 As a product designer what you need to do for constructing personas? Write all steps (Page#14)

Answer:-

Being a product designer we use to do constructing personas 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

Solved by Twilight_F@n
www.vustudents.net

diff. b.w visual art n visual design?
Visual art is where you can be perceptive, creative and abstarctive. isual design is where you have to keep user's goals in mind while creating design.

which theory claimed Problem solving is both productive and reproductive
Gestalt theory

what is controlled vocabuliries?
At its most vague, a controlled
vocabulary is any defined subset of natural language. At its simplest, a controlled vocabulary is a list of equivalent terms in the form of a synonym ring, or a list of preferred terms in the form of an authority file.

how active intervention technique performed?
Active intervention is a technique in which a member of the test team sits in the room with the participant and actively probes the participant's understanding of whatever is being tested.

Application software implemented in file system model?
There are only two arguments that can be mounted in favor of application software implemented in
the file system model: Our software is already designed and built that way, and users are used to it
Neither of these arguments is valid. The first one is irrelevant because new programs written with a
unified file model can freely coexist with the older implementation model applications. The
underlying file system doesn't change at all. In much the same way that toolbars quickly invaded the
interfaces of most applications in the last few years, the unified file model could also be implemented
with similar success and user acclaim.
The second argument is more insidious, because its proponents place the user community in front of
them like a shield. What's more, if you ask users themselves, they will reject the new solution because
they abhor change, particularly when that change affects something they have already worked hard to
master — like the file system. However, users are not always the best predictors of design successes,
especially when the designs are different from anything they've already experienced,

explain metadata in term of data processing
In data processing, meta-data is definitional data that provides information about or

Solved by Twilight_F@n

documentation of other data managed within an application or environment. For example,
meta-data would document data about data elements or attributes (name, size, data type,
etc) and data about records or data structures (length, fields, columns, etc) and data about
data (where it is located, how it is associated, ownership, etc.).

3 guidelines for function oriented Icons
Represent both the action and an object acted upon to improve comprehension. Nouns and verbs are easier to comprehend together than verbs alone (for example, for a
Cut command, representing a document with an X through it may be more readily understood than a more metaphorical image of a pair of scissors).
Beware of metaphors and representations that may not have the intended meanings for your target audience.
• Group related functions visually to provide context, either spatially or, if this is not appropriate, using color or other common visual themes.
• Keep icons simple; avoid excessive visual detail.
• Reuse elements when possible, so users need to learn them only once.

compare and contrast effects of different color backgrounds which you usually observe in real environment. Support your answer with the help of example.....
Too many colors. A study by Human Factors International indicated that one color significantly reduced search time. Adding additional colors provides less value, and at seven or more, search performance degraded significantly. It isn't unreasonable to suspect a similar pattern in any kind of interface navigation.
• Use of complementary colors. Complementary colors are the inverse of each other in
color computation. These colors, when put adjacent to each other or when used together as figure and ground, create perceptual artifacts that are difficult to perceive correctly or focus on. A similar effect is the result of chromostereopsis, in which colors
v on the extreme ends of the spectrum "vibrate" when placed adjacently. Red text on a blue background (or vice versa) is extremely difficult to read.
Excessive saturation. Highly saturated colors tend look garish and draw too much attention. When multiple saturated colors are used together, chromostereopsis and other perceptual artifacts often occur.
• Inadequate contrast. When figure colors differ from background colors only in hue, but not in saturation or value (brightness), they become difficult to perceive. Figure and
ground should vary in brightness or saturation, in addition to hue, and color text on color backgrounds should also be avoided when possible.
• Inadequate attention to color impairment. Roughly ten percent of the male population has some degree of color-blindness. Thus care should be taken when using red and green hues (in particular) to communicate important information. Any colors used to communicate should also vary by saturation or brightness to
• distinguish them from each other. If a grayscale conversion of your color
• palette is easily distinguishable, colorblind users should be able to distinguish the color version.

Solved by Fwlight_F@n

wearable computers
As the name suggests these computers are worn on the body like a piece of clothing. Wearable computers have been applied to areas such as behavioral modeling,
health monitoring systems, information technologies and media development. Government organizations, military, and health professionals have all incorporated wearable computers into their daily operations. Wearable computers are especially useful
for applications that require computational support while the user's hands, voice, eyes or
attention are actively engaged with the physical environment.

controlled vocabulary
---Repeated

uses of disks
Disks are cheaper than solid-state memory.
• Once written to, disks don't forget when the power is off.
• Disks provide a physical means of moving information from one computer to another.

Observations
Observation involves watching and listening to users. Observing users interacting with
software, even casual observing, can tell you an enormous amount about what they do,
the context in which they do it, how well technology supports them, and what other support is needed. In this lecture we describe how to observe and do ethnography and discuss their role in evaluation.
User can be observed in controlled laboratory-like conditions, as in usability testing, or in
the natural environments in which the products are used—i.e., the field. How the observation is done depends on why it is being done and the approach adopted. There is a
variety of structured, less structured, and descriptive observation techniques for evaluators to choose from. Which they select and how their findings are interpreted will
depend upon the evaluation goals, the specific questions being addressed, and practical
constraints.

Usability Test
Usability testing involves measuring typical users' performance on
carefully prepared tasks that are typical of those for which the system was designed. Users' performance is generally measured in terms of number of errors and time to complete the task. As the users perform these tasks, they are watched and recorded on video and by logging their interactions with software. This observational data is used to

Solved by Twilight_F@n

calculate performance times, identify errors, and help explain why the users did what they
did. User satisfaction questionnaires and interviews are also used to elicit users' opinions.
The defining characteristic of usability testing is that it is strongly controlled by the evaluator (Mayhew. 1999). There is no mistaking that the evaluator is in charge! Typically tests take place in laboratory-like conditions that are controlled. Casual visitors
are not allowed and telephone calls are stopped, and there is no possibility of talking to
colleagues, checking email, or doing any of the other tasks that most of us rapidly switch
among in our normal lives. Everything that the participant does is recorded—every key
press, comment, pause, expression, etc., so that it can be used as data.

Trunk Test
Imagine that you've been blindfolded and locked in the trunk of a car, then driven around
for a while and dumped on a page somewhere deep in the bowels of a Web site. If the page is well designed, when your vision clears you should be able to answer these questions without hesitation:
• What site is this? (Site ID)
• What page am I on? (Page name)
• What are the major sections of this site? (Sections)
• What are my options at this level? (Local navigation)
• Where am I in the scheme of things? ("You are here" indicators)
• How can I search?

Q. It has been observed that most computer users use menu option for input instead of keyboard accelerator. What is the reason behind it? (2 Marks)
Menu options are easier to find.
You don't have to memorise the keys for menu option but for key board accelaerators you have to memorise them

Q. Define active intervention. (2 Marks)
----Repeated
Q. What is Ubiquitous Computing? (2 Marks)
Another popular
term for this emerging paradigm is pervasive computing, first coined by IBM. The intention is to create a computing infrastructure that permeates our physical environment
so much that we do not notice the computer may longer. A good analogy for the vision of
ubiquitous computing is the electric motor. When the electric motor was first introduced,
it was large, loud and very noticeable. Today, the average household contains so many

Solved by Twilight_F@n

electric motors that we hardly ever notice them anymore. Their utility led to ubiquity and,
hence, invisibility.Ubiquitous computing (ubicomp, or sometimes ubiqcomp) integrates computation into
the environment, rather than having computers which are distinct objects. Other terms for
ubiquitous computing include pervasive computing, calm technology, and things that think. Promoters of this idea hope that embedding computation into the environment and
everyday objects would enable people to move around and interact with information and
computing more naturally and casually than they currently do.

Q. Which display device is very cheap and has fast enough response time for rapid animation with high color compatibility? (2 Marks)
The CRT is a cheap display device and has fast enough response times for rapid animation coupled with a high color capability.

Q. By breakdown Skelton plane into its component elements then how all piece fit together to create this as whole user experience? (3 Marks)
Beneath that surface is the skeleton of the site: the placement of buttons, tabs, photos, and
blocks of text. The skeleton is designed to optimize the arrangement of these elements for
maximum effect and efficiency.

Q. Explain Meta data in term of data processing. (3 Marks)
----Repeated

Q. Suppose you are a system analyst, with your work experience, briefly describe when it is useful to observe in contrast to observation process? (3 Marks)
Early in design,
observation helps designers understand users' needs. Other types of observation are done later to examine whether the developing prototype meets users' needs

Q. Describe any five usability goals of Internet Explorer. (5 Marks)
Effective to use (effectiveness)
• Efficient to use (efficiency)
• Safe to use(safety)
• Have good utility (utility)
• Easy to learn (learnability)
• Easy to remember how to use (memorability)

Q. When observation is useful and how to observe? (5 Marks)
observation helps designers understand users' needs. Other types of observation are done later to examine whether the developing prototype meets users' needs
In the field or in the controlled environments

Q. Difference between Semi-structure interview and focus group interview. (5 Marks)

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semi structured interviews have both open and closed ended questions. Focus group interviews include 3-10 people who are guided towards solving a problem.
Semi-structured interviews combine features of structured and unstructured inter views and use both closed and open questions. For consistency the interviewer has a basic script for guidance, so that the same topics arc covered with each interviewee. Normally three to 10 people are
involved. Participants are selected to provide a representative sample of typical users; they normally share certain characteristics. For example, in an evaluation of a university
website, a group of administrators, faculty, and students may be called to form three separate focus groups because they use the web for different purposes.

Suppose you are an HCI specialist, what do you think that evaluation of design or product is beneficial? Justify your point of view.(5 marks)
Problems are fixed before the product is shipped, not after.
2. The team can concentrate on real problems, not imaginary ones.
3. Engineers code instead of debating.
4. Time to market is sharply reduced.
5. Finally, upon first release, your sales department has a rock-solid design it can sell without having to pepper their pitches with how it will all actually work in release 1.1 or
2.0.

Match the following regarding Goal-Directed Design(5marks)

A	
Research	Users and use Context
Modeling	Definition of user, business& technical needs
Requirements	Definition of design structure & flow
Framework	Of behavior, form & content
Refinement	User and the Domain

Answer:

Research	User and the Domain
Modeling	Users and use Context
Requirements	Definition of user, business& technical needs
Framework	Definition of design structure & flow
Refinement	Of behavior, form & content

Suppose you are creating an account on yahoo, fill all the required information but forget to retype password. As you click on submit button a warning is message

appears “This information is required” on retype password field. Yahoo suggests that your registration will not be submitted until you retype password. Explain this

specific characteristic of considerate software.(3 marks)

Solved by Twilight_F@n

It ensures there are no mistakes while typing the password because retyping matches and makes sure you do not make a mistake. you can type an error password once

but not twice. This is a security check and its good for user.

You are assigned to perform trunk test on website "amazon.com". Write down all the necessary steps to perform the trunk test.(3 marks)

Imagine that you've been blindfolded and locked in the trunk of a car, then driven around
for a while and dumped on a page somewhere deep in the bowels of a Web site. If the page is well designed, when your vision clears you should be able to answer these questions without hesitation:
• What site is this? (Site ID) amazon.com
• What page am I on? (Page name) home page
• What are the major sections of this site? (Sections) buy, sell, user, cart
• What are my options at this level? (Local navigation) see other things, related links
• Where am I in the scheme of things? ("You are here" indicators) you are here indicator
• How can I search? the search tab

I am working on a web site and have designed a home page. The information I added does not fit into screen size of computer. I do not want to remove any data from

this page. Is this any solution that all data can be shown to user?(3 marks)

Tabs can be used to group related data under one heading and then creating different sections.
Scroll bars can be used for data which does not fit on one screen.
Different sections can be created with a heading and some content given on main page with a "Read More" indicator. This will take user to a new page if user is

interested in reading more.

Suppose you are a web developer. While designing web applications you use metadata tags in your application that make efficient search? Briefly explain metadata and

its purpose in web site. (3 marks)
Meta data is the data about data. It includes the tags and the basic "keywords" which can be used to find this website. On search engine people search using keywords,

so the more appropriate keywords you use in defining your website, more are the chances people who enter that particular keyword will find your webpage.

Suppose you are an HCI specialist and have to perform the usability testing for those products that do not even have to involve any hardware or software. Which

usability testing techniques you will use in this case. (2 marks)
Using questionnaire or interview and observation in field.

Solved by Twilight_F@n

Which screen display when user launches the program and first loads into the memory?(2 marks)
A splash screen is a dialog box displayed when a program first loads into memory. Sometimes
it may just be the About box or Identity box, displayed automatically, but more often publishers create a separate splash screen that is more engaging and visually exciting

Three characteristics of a good website design
- easy to navigate
- easy to memorize
- visually pleasant
- lesser visual cluster

2.) Accessibility in emerging paradigms
Accessibility is a general term used to describe the degree to which a system is usable by
as many people as possible without modification.People with disabilities are trying to use web and there are steps taken to ensure they are
not discriminated against.

3.) What "function" will create a copy of the original document in MS Word?
Save as

4.) Define Strategy and Scope planes.
Strategy:The scope is fundamentally determined by the strategy of the site. This strategy
incorporates not only what the people running the site want to get out of it but what the
users want to get out of the site as well.

Scope: The structure defines the way in which the various features and functions of the site fit
together. Just what those features and functions are constitutes the scope of the site.

5.) Usability tests.
---repeated
6.) Define controlled Vocabularies?
---repeated

Point out the problem with Excise task?
Excise tasks, on the other hand, don't contribute directly to reaching
the goal, but are necessary to accomplishing it just the same. its a wasted effort

Application software implemented in file system model?
---Repeatition

Define controlled Vocabularies?

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---repeated

What is Scope Plane in context of elements of user experience?
Scope is what different functions and buttons in the structure plane do. This is very important because it mainly describes
what the user can or cannot do.

By breaking down Skeleton plane into its component elements then how all the pieces fit together to create this as a whole user experience?
---repeated

Solved by Twilight_F@n