Department of Computer Engineering

HMI Question Bank for IA-II (2019-20)

1) One component which contains nearly all GUI programs will have ----------
   a) Frame
   b) Mouse
   c) Monitor
   d) Button

2) Which one is the basic input device in GUI?
   a) Mouse
   b) Graphics Tablet
   c) Voice System
   d) Touch panel

3) GUI stands for
   a) Graphical User Interface
   b) Graphical User Interaction
   c) Graphics Uniform Interaction
   d) None of the above

4) The visual language includes ----------------------for representing visual sentences
   a) Visual language
   b) Icons
   c) Both a and b
   d) None of these

5) What is/are the main component/ components of User Interface?
   a) Presentation language
   b) Action language
   c) Both a and b
   d) None of them

6) Which type of interface provides input by typing a string in the keyboard?
   a) Graphical User Interface
   b) Command Line User Interface
   c) Natural Language Interface
   d) Menu Interface

7) A GUI is a -----------------
   a) Hardware
   b) Language Interpreter
   c) Software Interface
   d) Operating System

8) Natural Language User Interface can accept input in the form of ----------------
   a) String Command
   b) Speech
   c) Image
   d) None of these

9) In Graphical User Interface of Operating System, to point files user uses ----------------
   a) Pointer
   b) Common Line Interface
   c) File Based Interface
   d) Voice Based Interface

10) Files and directories of Graphical User Interface of Operating System programs are known as----------
   a) Commands
   b) Graphics
   c) Text
   d) Folders

11) Which of the following is the golden rule for interface design?
   a) Place the user in control
   b) Reduce the user's memory load
   c) Make the interface consistent
   d) All of the mentioned

12) Which of the following is not a design principle that allows the user to maintain control?
   a) Provide for flexible interaction
   b) Allow user interaction to be interrupt-able and undo-able
   c) Show technical internals from the casual user
   d) Design for direct interaction with objects that appear on the screen

13) Which of the following is not a user interface design process?
   a) User, task, and environment analysis and modeling
   b) Interface design
   c) Knowledgeable, frequent users
   d) Interface validation

14) When users are involved in complex tasks, the demand on _____ can be significant.
   a) Short-term memory
   b) Shortcuts
   c) Objects that appear on the screen
   d) All of the mentioned

15) Which of the following options is not considered by the Interface design?
   a) The design of interfaces between software components
   b) The design of interfaces between the software and human producers and consumers of information
   c) The design of the interface between two computers
   d) All of the mentioned

16) A software might allow a user to interact via -----------------
   a) Keyboard commands
   b) Mouse movement
   c) Voice recognition commands
   d) All of the mentioned

17) What establishes the profile of end-users of the system?
   a) Design model
   b) User's model
   c) Mental image
   d) System image

18) Which of the following is not a characteristic of direct manipulation interfaces?
   a) Visibility of the objects and actions of interest.
   b) Menu selection and form fill-in.
   c) Rapid, reversible, incremental actions.
   d) Replacement of typed commands by a pointing action on the object of interest.

19) Augmented reality is _____.
   a) The same thing as virtual reality
   b) A type of dashboard displaying a large volume of information at one time.
   c) An innovation in which users see the real world with an overlay of additional information.
   d) The use of haptic interaction skills to manipulate objects and convert the physical form to a digital form.

20). Drawbacks of direct manipulation include all of the following except _____.
   a) Designs may consume valuable screen space.
   b) Users must learn the meanings of visual representations.
   c) Visual representation may be misleading
   d) The gulf of execution is increased

21) Remote environments are complicated by _____.
   a) The gulf of execution, the gulf of evaluation, and time delays.
   b) Time delays, incomplete feedback, and unanticipated interferences.
   c) Supervisory control, lack of multiple coordinated views, and time delays
   d) Lack of precision, supervisory control, time delays, and gulf of execution

22) All of the following are good guidelines for use of icons except _____.
   a) Represent the object or action in a familiar and recognizable manner.
   b) Carefully consider three-dimensional icons; they are eye-catching but also can be distracting.
   c) Limit the number of different icons.
   d) Make the icon blend in with its background.

23) Successful virtual environments will depend on smooth integration of what technologies?
   a) Visual display
   b) Head-position and hand position sensing
   c) Force feedback and haptics
   d) All of the above

24) The advantages of WYSIWYG word processors include all of the following except _____.

   a) Users see a partial page of text.
   b) The document is seen as it will appear when printed.
   c) Cursor action is visible and cursor motion is natural.
   d) Immediate display of the results of an action

25) Relative flow dragging allows a user to _____.
   a) Move through a video by dragging an object of interest along its visual trajectory.
   b) See a large volume of information at one time and to directly manipulate it
   c) Be in an immersive environment that blocks out the world.
   d) Avoid complex commands that they might be needed only during a once-a-year emergency.

26) A successful direct-manipulation interface must present _____.
   a) A complex series of user choices.
   b) An appropriate representation or model of reality.
   c) The option for users to enter a long string of commands.
   d) Mixed metaphors so that users don't become bored.

27) Which of the following is not a beneficial attribute of well-designed systems that use direct manipulation?
   a) Novices can learn basic functionality quickly
   b) Experts can work rapidly to carry out a wide range of tasks
   c) Knowledgeable intermittent users can retain operational concepts.
   d) User actions are permanent and cannot easily be undone

28) _____ is the name for the condition that exists when a remotely controlled device transmits its current position, but does it so slowly that it does not indicate its exact current position.
   a) Incomplete feedback
   b) Transmission delay
   c) Insufficient feedback
   d) Feedback delay

29) One solution to the problems of the architecture of remote environments is _____.
   a) Discourage the use of remote environments for critical tasks.
   b) Make explicit the network delays and breakdowns as part of the system.
   c) Add animation that allows users to see what happens if they move their input device.
   d) Better user training

30) For virtual environments to be successful, displays must _____.
   a) Approach real time in presenting images to the users.
   b) Use low resolution when objects are not moving
   c) Be head-mounted
   d) Be boom-mounted

31). Allowing surgeons to look at a patient while they see an overlay of an x-ray is an example of _____.
   a) Virtual reality
   b) Visual Display
   c) Augmented Reality
   d) Force Feedback

32) Users have a strong sense of causality when _____.
   a) Interface objects and actions are complex.
   b) Users can select actions rapidly by pointing or gesturing.
   c) Display feedback is delayed.
   d) Inputs produce random results

33) The user interacts with a collection of elements referred to as -------------
   a) Actions
   b) Design
   c) Objects
   d) Records

34) The primary interaction mechanism is a ---------------device of some kind.
   a) Pointing
   b) Selecting
   c) Computing
   d) Viewing

35) Printed pages are immensely -------------   to web pages in rendering.
   a) Inferior
   b) Down
   c) Reversed
   d) Superior

Jawahar Education Society's
A. C. Patil College of Engineering
Kharghar, Navi Mumbai 410210.

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36) In practice, direct manipulation of all screen objects and actions may not be feasible because of ---------- .
   a) Action could be reversed
   b) Operation may be difficult to conceptualize
   c) Both a and b
   d) None of the above

37) Menu bars are used to present _____ .
   a) Application alternatives
   b) Choices to the screen user
   c) Both a and b
   d) None of the above

38) _____set one item from a small set of mutually exclusive options.
   a) List boxes
   b) Checkboxes
   c) Drop Boxes
   d) Radio buttons

39) Which is not a good rule for organizing menu contents into meaningful groups and sequences?
   a) Create groups of logically similar items.
   b) Form groups that cover all possibilities.
   c) Make sure that some items overlap
   d) Use familiar terminology, but ensure that items are distinct from one another.

40) Menus with simple yes/no, true/false, or male/female choices are called _____.
   a) Binary
   b) Tertiary
   c) Secondary
   d) Simple

41) Which of the following is not a guideline for good form fill-in design?
   a) Group and sequence of fields logically
   b) Make sure that required fields are clearly marked
   c) Allow users to enter any value in a field
   d) Give immediate feedback about errors

42) Almost all keyboards use the _____ layout.
   a) ABCDE
   b) QWERTY
   c) Inverted-T arrangement
   d) Virtual

43) Users with motor disabilities often prefer _____ over mice.
   a) Touchpads and tablets
   b) Directional pads and trackpoints
   c) Joysticks and trackballs
   d) d. Touchpads and joysticks

44) A touchscreen is an example of a _____ device.
   a) Direct Control
   b) User Control
   c) Indirect Control
   d) None of the above

45) Touchscreen and trackball devices are a good choice for _____.
   a) Public access, shop floor, and laboratory applications.
   b) Drawing and handwriting.
   c) Games
   d) Situations when there are a small number of targets

46) When considering the depth/Breadth tradeoff in menus, studies show that _____.
   a) Breadth should be preferred over depth.
   b) Depth should be preferred over breadth.
   c) User experience level is the key factor.
   d) Designers should give users a choice

47) An icon of a file folder, which users can drop files on in order to move them to the folder is an example of which of the following?
   a) The "recognition rather than recall" principle
   a) Direct Manipulation
   b) Both the above options
   c) None of the mentioned above

48) Generally, computer input in human computer interaction is -------
   a) Computer Output
   a) Computer Input
   b) User Input
   c) User Output

49) Which of the following is a good idea when designing menus for a small screen device like a phone?
   a) Present as many functions as possible
   b) Simplify. Focus on important functions, relegate others to other platforms
   c) Always sequence menu items in alphabetical order
   d) Do not worry about learnability

50) Expert or frequent users who need quick ways to perform simple tasks benefit from all of the following except _____
   a) Keyboard shortcuts
   b) The ability to "mouse ahead"
   c) Tear-off menus.
   d) Random presentation sequence.

51) The size of a chunk of information a person can hold in short-term memory depends on _____.
   a) Their familiarity with the material (knowledge and experience).
   b) Their long-term memory
   c) Their natural cognitive abilities
   d) Their age and gender

52) Ways a designer can reduce user frustration include all of the following except:
   a) Increase server capacity, network speed, and network reliability.
   b) Improve user training, online help, and online tutorials.
   c) Redesign instructions and error messages.
   d) Design for expert users first, not for universal usability.

53) Which statement is not true about short-term, long-term, and working memory?
   a) People have limited capacities for absorbing information.
   b) People store short "chunks" of information in short-term memory.
   c) People use short-term memory in conjunction with working memory for processing information and for problem solving.
   d) Long-term memory processes perceptual input, whereas working memory is used to generate and implement solutions.

54) Dialog boxes should _____.
   a) Be as large as possible to make sure users notice them.
   b) Be small as is reasonable to minimize the overlap and visual disruption.
   c) Be difficult to make disappear.
   d) Blend into the background.

55) Embedded links _____.
   a) Permit items to be viewed in context.
   b) Are distracting to users.
   c) Waste screen space.
   d) Are useful for expert users.

56) Which of the following fields is an influence of HMI?
   a) Ergonomics
   b) Cognitive Psychology
   c) Computer Science
   d) All of the above

57) A software engineer designs the user interface by applying an iterative process that draws on predefined design principles.

a) True
b) False