



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA
SECOND SEMESTER EXAMINATIONS, MAY 2018

COURSE NO: CE 382

COURSE NAME: HUMAN COMPUTER INTERACTION

CLASS: III

TIME: 3hrs

Name: _____ Index Number: _____

Carefully read all questions in Section A and circle your answers. Answer any other two in section B.

1. What does HCI stand for?

- a. Human Computer Interface
- b. Human Computer Interaction
- c. Human Computer Implementation
- d. Human Computer Industry

2. Which one of these would NOT be found in a good HCI?

- a. Common short cuts, like CTRL+Z for undo
- b. Icons that can have specific meanings
- c. A long command line to achieve a function
- d. A sound that convey meanings

3. Which one of these is a good reason for taking time to design a good computer human interface?

- a. Not every user is a computer expert
- b. Well designed HCIs allow the software to be sold at a better price
- c. Well designed HCIs use less computer resources
- d. Well-designed HCI allows the computer to run faster.

4. In virtual reality which of the senses cannot currently be portrayed?

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

5. HCI is based on psychological factors of humans?

- a. True
- b. False

6. Which of these is not an interface style?
- a. Command line/ Command prompt
 - b. Menus
 - c. Natural Language
 - d. Voice Recognition
7. Which one of these is a good reason to include sounds in an HCI?
- a. Users react more quickly to sound than to visual signals
 - b. Users react more slowly to sound than to visual signals
 - c. There is no preference, people just like sounds
 - d. The computer reacts to sounds in the same way as a human
8. All countries read from left to right?
- a. True
 - b. False
9. A computer expert produces a solution with HCI which is very efficient in computer resources, based on command-lines. Which one of the following is most likely to be the result when the system is implemented?
- a. It will be welcomed by all staff
 - b. All staff will enjoy using it after mastering the skills of command lines
 - c. Most staff will want to become computer experts to use it
 - d. Most staff will feel demoralized and will not want to use the system
10. Which of these films uses futuristic HCI?
- a. Speed
 - b. Minority Report
 - c. Terminator
 - d. Bambi
11. According to Moore's law, _____ doubles every 12-24 months
- a. Device Density
 - b. Processor
 - c. System lifespan
 - d. All of the above
12. What are some ways to gather data?
- a. Questionnaires/interviews
 - b. Observational Study
 - c. Market Research
 - d. All of the above
13. Rods help with _____ vision?

- a. Peripheral
 - b. Low light
 - c. Colour
 - d. A and B
14. What properties do affordances have?
- a. Perceived
 - b. Actual
 - c. Existing
 - d. All of the above
15. Colors to avoid for color-blind people?
- a. Red
 - b. Green
 - c. Blue
 - d. All of the above
16. Card, Moran, and Newel wrote The Psychology of Human Computer Interaction in 1983 and proposed the Model Human Processor
- a. True
 - b. False
17. KSLM stands for
- a. Keystroke Level Model
 - b. Keyboard Level Model
 - c. Keystroke Live Model
 - d. Keyboard Live Model
18. A _____ provides an understanding of the tasks users need to perform to achieve certain goals
- a. Hierarchical task analysis
 - b. High Level task
 - c. Low Level Task Analysis
 - d. All of the above
19. Using complimentary colors on top of each other is an example of _____ and shouldn't be used unless its for a sign or urgent message
- a. Colour Vibration
 - b. Colour Separation
 - c. Colour Manipulation
 - d. None of the above
20. The cocktail party phenomenon is an example of people using Selective attention
- a. True
 - b. False
21. Observational studies, or _____, are great ways of observing the user complete tasks.
- a. Contextual Enquiry
 - b. General Enquiry
 - c. Stratum enquiry
 - d. None of the Enquiry
22. The _____ is the gap between a user's goal for action and the means to execute that goal
- a. Gulf of Execution
 - b. Gulf of Evaluation
 - c. Gulf of Analysis
 - d. Gulf of Design
23. _____ is the degree to which the system provides representations that can be directly perceived and interpreted in terms of the expectations and intentions of the user

- a. Gulf of Execution
 - b. Gulf of Evaluation
 - c. Gulf of Analysis
 - d. Gulf of Design
24. All computer-aided equipment inherently are hard to use.
- a. True
 - b. False
25. Techies posses
- a. Power of Products
 - b. Satisfied
 - c. Belief in Technology
 - d. All of the above
26. Good experience lead to
- a. Satisfaction
 - b. Happiness
 - c. Elation
 - d. Relaxation
27. Types of Constraints include the following except
- a. Physical
 - b. Logical
 - c. Cultural
 - d. Emotional
28. Errors are due to
- a. Mistakes
 - b. Slips
 - c. None of the above
 - d. All of the above
29. The three components of colour perception include the following except:
- a. Hue
 - b. Saturation
 - c. Intensity
 - d. Elevation
30. Sound Characteristics include Pitch, level and TimbreTrue
- a. False

SECTION B

- 1a. Briefly explain what is meant by the terms perception, physiology and cognition
- b. Provide three reasons why conventional approaches to task analysis may not be sufficient to analyse interaction with current generations of computer-based systems
- c. What is the formal definition of Human Computer Interaction? Hence, compare the natures of Human and Computer. Discuss the usability goals of a Computer System.
- 2a. Identify three different ways in which 'functional ageing' can affect interface development
- b. Briefly describe why 'mood congruence' is a significant factor in the design of a successful computer game
- c. Itemise the tests of software quality. In a tabular form, describe the factors considered in Human Computer Interaction.
- 3a. Environmental factors can impair users' ability to recall information that is necessary to operate complex, computer systems. Briefly explain how such disruptions can impair both short-term AND long-term memory
- b. Briefly explain why initial failure with a computer game might lead to the low expectations that increase the likelihood of future failures
- c. What are the capabilities and limitations of Human Visual Processing? What are various the types of human haptic sensing?

Examiners: Prof B. K. Alese