

Name:

Group: 2A 2B 2C 2D 2E 2F 2G FLIP RET

Duration: 60

minutes

Instructions: Mark your answers in the template provided in a separate sheet. **Each correct answer is worth one point. Each wrong answer subtracts 1/3 points.**

1. Which of the following sentences is FALSE?

- a. An interface is deficient if the fields of a form have not a descriptive label.
- b. A good interface must inform the user about the progress of the ongoing actions.
- c. Allowing the user to cancel an ongoing action is a characteristic of deficient interfaces.
- d. Ask the user confirmation about potentially dangerous actions is a characteristic of good interfaces.

2. Which of the following responses show the correct chronological order of the facts about the history of Human-Computer Interfaces?

- a. 1- First interactive graphics editor; 2- Presentation of an interface with multiple windows ("the mother of all demos"); 3- First commercial implementation of a WYSIWYG system (Xerox Star); 4- Release of the first vector monitors.
- b. 1- Release of the first vector monitors; 2- First interactive graphics editor; 3- Presentation of an interface with multiple windows ("the mother of all demos"); 4- First commercial implementation of a WYSIWYG system (Xerox Star).
- c. 1- Release of the first vector monitors; 2- First commercial implementation of a WYSIWYG system (Xerox Star); 3- Presentation of an interface with multiple windows ("the mother of all demos"); 4- First interactive graphics editor.
- d. 1- First interactive graphics editor; 2- Release of the first vector monitors; 3- First commercial implementation of a WYSIWYG system (Xerox Star); 4- Presentation of an interface with multiple windows ("the mother of all demos").

3. Which of the following sentences is false?

- a. The Xerox Alto was the first commercial computer with a bitmap screen.
- b. The Apple computers were the first using color monitors.
- c. Windows 1.0 could not show overlapping windows.
- d. The use of graphical user interfaces was one of the main reason of the popularization of PCs

4. Which of the following tasks is automatic?

- a. Speaking
- b. Listening to the news
- c. Sending a *whatsapp*
- d. Listening to music

5. Which of the following Gestalt Laws apply to the following figure?



- a. Proximity and Closure
- b. Symmetry and Continuity
- c. Similarity and Proximity
- d. Symmetry and Closure

6. Which of the following sentences is TRUE?

- a. The Gestalt Law of figure-ground separation can be used to direct the user's attention to a specific location in the interface
- b. Using a wide range of colors in an interface helps the user focusing the attention on the important parts
- c. Visibility is a design principle that states that controls should have a high contrast with the background to be visible
- d. Affordance is a design principle that is required for designing accessible interfaces

7. Which of the following is NOT a goal of usability?

- a. Make the interfaces easier to use
- b. Reinforce users' confidence
- c. Allowing the users to know the state of the system
- d. Guarantee the proper use of the system

8. The anthropometric studies:

- a. Measure the cognitive capabilities of users
- b. Evaluate the personality of users
- c. Provide standard measures of persons (head, hands, feet, etc.)
- d. Accommodate workplace to persons

9. What advantages has accessibility for non-disabled users?

- a. None
- b. Reduces the development costs of the application
- c. Provide environments where those users can play
- d. Improves usability

10. Which of the following is NOT a Gestalt Law?

- a. Proximity
- b. Similarity
- c. Continuity
- d. Affordance

11. In the following figure, it seems that two buttons are related. Which Gestalt Law is responsible for that effect?



- a. Closure
- b. Symmetry
- c. Grouping
- d. Proximity

12. In the following figure, it seems that two buttons are related. Which Gestalt Law is responsible for that effect?



- a. Closure
- b. Symmetry
- c. Grouping
- d. Proximity

13. Why should we be careful when using contrast elements to capture user attention?

- a. Because an excess of highlighted elements can reduce the expected effect
- b. There is no problem on highlighting as many elements in the interface as it is necessary
- c. The most important elements in the interface should only be highlighted using color
- d. Because alarms can frighten the users

14. Who are the primary users of poliformaT?

- a. The professors and the page administrators
- b. The students
- c. The professors, the page administrators and the students
- d. The page administrators

15. Which of the following sentences is not a requirement:

- a. The system must keep working during a power outage for, at least, one hour
- b. The system must be able to generate a monthly sales report
- c. Users will be identified by means of a biometric device
- d. The system will use the A* search algorithm for finding the shortest path between two nodes

16. Which of the following tools is used to perform an indirect observation?

- a. In-situ interview, taking notes
- b. Interview in a usability laboratory
- c. A digital still camera
- d. A keystroke logger

17. The process of designing and developing user interfaces based on the User Centered Design paradigm has the following steps:

- a. Analysis, prototyping, design, implementation and evaluation.
- b. Design, prototyping, evaluation and test with users, in an iterative process

- c. Analysis, design, prototyping, implementation and evaluation
- d. Design, implementation and evaluation, in an iterative process

18. Which of the following sentences is TRUE?

- a. Alternative interfaces do not change the time needed to perform a task by the user, but it does change the user perception
- b. The time needed by the user to perform a task depends on the underlying software architecture and it does not depend on the user interface
- c. Using the same software architecture, different user interfaces can change the time it takes the user to perform a task
- d. The three previous responses are false

19. A *persona*, in the context of User Centered Design:

- a. is a real person
- b. represents a particular type of user
- c. represents the average user
- d. represents the ideal user of the product

20. Which of the following sentences is FALSE?

- a. Ergonomics accommodates workplaces to persons
- b. Usability is the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use
- c. Accessibility is the usability of a service, product, environment or facilities by persons with the widest range of capabilities
- d. Universal Usability consists of adapting the applications to different languages such that they will be usable by the widest range of nationalities.

21. Some psychological principles can be the cause of errors. Connect each psychological principle (left column) with a design principle (right column) that helps to reduce the possibility of error

PSYCHOLOGICAL PRINCIPLE	DESIGN PRINCIPLE
1. Users see that they expect to see	A. Implement menus, icons and screen metaphors instead of using a command line interface or keyboard shortcuts
2. It is easier to recognize something than to recall it	B. The most important information should be placed in a prominent position (e.g. warnings and alarms in the center of the screen)
	C. Keep the same color scheme, button order, wording of the concepts, etc. across the UI
	D. Group together things that go together

- a. 1-C; 2-A
- b. 1-B; 2-C
- c. 1-A; 2-C
- d. 1-C; 2-D

22. Some psychological principles can be the cause of errors. Connect each psychological principle (left column) with a design principle (right column) that helps to reduce the possibility of error

PSYCHOLOGICAL PRINCIPLE	DESIGN PRINCIPLE
1. It is easier to perceive a structured design	A. Implement menus, icons and screen metaphors instead of using a command line interface or keyboard shortcuts
2. Users have difficulty focusing on more than one activity at a time	B. The most important information should be placed in a prominent position (e.g. warnings and alarms in the center of the screen)
	C. Keep the same color scheme, button order, wording of the concepts, etc. across the UI
	D. Group together things that go together

- a. 1-B; 2-D
- b. 1-B; 2-A
- c. 1-D; 2-B
- d. 1-A; 2-C

23. How would you define the feedback principle in the interface design?

- a. Controls should be easy to find
- b. The state of the system should always be visible to the user
- c. It should be obvious how to use the system
- d. None of the above

24. The analysis of the competence:

- a. must not be carried out at the same time of an ethnographic analysis
- b. produces as a result a list of personas
- c. consists of compiling a list of similar systems, make a comparative table and review the results
- d. tries to establish the competitiveness of our system after it is developed and released

25. What is the goal of the technique called *persona*?

- a. Representing a model of the users
- b. Using our interface during the evaluation of the prototypes
- c. Implementing the interface subsystem
- d. Testing the current system for suggesting future improvements

26. If you want to describe with detail and in an orderly way the interaction between a user and a system, what task analysis technique would you use?

- a. Task scenarios
- b. Concrete use cases
- c. Hierarchical Task Analysis
- d. Storyboards.

27. Which of the following is an efficiency measure of an application?

- a. The average time to learn a task
- b. The average answer in a 1 to 5 scale to a question about the user satisfaction level
- c. The number of functions used correctly for solving a problem
- d. Frequency of reuse

28. An on-screen keyboard is an accessibility tool designed especially for:

- a. Blind users
- b. Deaf users
- c. Users with motor problems who can use a pointing device
- d. Users who cannot use pointing devices.

29. A company wishes to increment the number of orders processed per hour in the system for controlling the stock in a warehouse, introducing some changes in the user interface. If we want to evaluate objectively if the new system deliver the expected results, we should:

- a. take effectiveness measures before and after the change, and check if they improve
- b. take efficiency measures before and after the change, and check if they improve
- c. take user satisfaction measures before and after the change, and check if they improve
- d. It is not possible to measure objectively such a improvement

30. There are cameras that allow the user to take a picture by a voice command. That functionality:

- a. Is useful only for users with some disability
- b. Is incompatible with taking pictures with a physical button
- c. It is useful both for user with disabilities and for the rest of the users
- d. It is recommended for noisy environments

31. Suppose we want to make a usability study for assessing the level of fulfillment of the needs of trained users in a given system. Which of the following measures would be more appropriate for measuring the effectiveness?

- a. The rate of voluntary use
- b. The time to learn to criterion with respect to a specified level of effectiveness
- c. The number of power tasks performed and the percentage of relevant functions used
- d. The time spent re-learning functions and the number of persistent errors

32. Your company wants to release a new e-book reader. Which of the following measures would be more appropriate if learnability were the primary usability goal?

- a. Time required for reading correctly a given number of characters.
- b. Frequency of reuse
- c. Rating scale for visual discomfort
- d. The time to learn to criterion of competence

33. Which of the following sentences is TRUE?

- a. The technique of Use scenarios is used during the requirement analysis phase of the development of an application
- b. The technique of Task scenarios is used during the requirement analysis phase of the development of an application
- c. The technique of Concrete use cases is used during the requirement analysis phase of the development of an application
- d. All of the above.

34. Given the following use case for a library computer system: *A library user asks the librarian to borrow a book*. Which of the following options describe better the concrete use case corresponding to that functionality?

a.

LIBRARIAN	SYSTEM
1. The librarian tells the system that she wants to register a book loan	2. The system requests the user ID
3. The librarian provides the system with the user ID	4. The systems requests the book ID
5. The librarian provides the book ID	6. The system shows the due date and waits for a confirmation
7. The librarian tells the user the due date and asks for a confirmation	
8. The librarian confirms the loan	9. The system shows that the loan has been completed successfully

b.

LIBRARY USER	SYSTEM
1. María selects the option "Borrow a book"	2. The system ask María her ID
3. María fills in the form with her ID number and name	4. The system asks María for the identification of the book she wants to borrow
5. María fills in the form with the data about the book	6. The system shows the due date and shows a confirmation dialog box
7. María clicks on the "Ok" button	

c.

LIBRARIAN	LIBRARY USER
1. The librarian request the ID card from the user	2. The user hands over her ID card to the librarian
3. The librarian asks the user the details of the book she wants to borrow	4. The user gives the librarian the details about the book she wants
5. The librarian introduces the information in the system	6. The user confirms the loan
7. The librarian tells the user the due date and confirms that the loan has been completed successfully	

d.

LIBRARY USER	LIBRARIAN
1. The user asks the librarian to borrow a book	2. The librarian checks if the book is available. If it is not, she tells the user
3. If the book is not available, the user asks for another book and repeats the previous step	4. The librarian request the ID card from the user
5. The user hands over her ID card to the librarian	6. The librarian hands over the book to the user
7. The user asks the librarian for the due date	8. The librarian tells the user the date when she should return the book

35. Which of the following sentences is FALSE?

- a. The task analysis is an activity that studies what a system should do and the functionality it should provide to the users for helping them to achieve their goals
- b. The analysis of the competence is a technique for gathering requirements that should not be used because it is regarded as unethical
- c. During the requirement analysis phase, a model of a person should be created for describing the user and for providing data such as motivation, intentions or goals
- d. The user studies allow the designers to understand what users think and feel, and it is used to understand better their point of view