Question (1) Choose the right answers and label them in your answer sheet. (30 x 1.5 Marks)

1- RFID tags are considered security _____
  a) Input device   b)Output device   c) Biosensor device   d) a&b

2- The _____ is a specific action required to meet the goal.
  a) Task   b) Intention   c) Interaction style   d) Output

3- What is False goal when choosing a model of interaction?
  a) Effectively translate between parities
  b) Speed and accurate translation
  c) Maximize the gulf of execution as possible
  d) Provide user usability

4- Which of the following represents The Norman's execution Stage?
  a) Perceiving the system state
  b) Interpreting the system state
  c) Specifying the action sequence
  d) Evaluating the system state

5- Example of short memory _____
  a) Scratch-pad   b) Episodic memory   c) Semantic network   d) Iconic memory

6- What is the best memory model that describes procedural model of thinking
  a) Scripts   b) Semantic memory   c) Production rule   d) Frames

7- Derive logically necessary conclusion from given premises is known as _____
  a) Deduction   b)Induction   c)Abduction   d) None of them

8- Emotion influences the interface design as:
  a)Stress/relax could affect user behavior while dealing with the interface
  b)Type of stimuli could affect user response
  c) Stimuli should represent the interface as possible
  d) all are true

9- Which of the following cycle is considered Normans' model execution loop?
  a) User establishes the goal formulates intention, specifies actions at interface
  b) Formulates intention, specifies actions at interface, executes action
  c) Perceives system state , interprets system state, evaluates system state with respect to goal
  d) Execute action, perceives system state , interprets system state

10- What is true about menu design?
  a) It must be hierarchically grouped
  b) It must be logically grouped
  c) a& b
  d) Relying on recall rather than recognition

11- _____ most attractive means of communicating with computers
  a) NLP   b) touch screen   c) WIMP   d)OCR

12- To retrieve information from a database, the best interaction style is _____
  a) Query dialog   b) forms-fill   c)WIMP   d)NLP

13- _____ occur when the user's formulation of actions don't satisfy the actions allowed by the system
  a) Gulf of evaluation   b) Gulf of execution   c) Gulf of design   d) Gulf of interactivity

14- Which of the following is a right defense against user slips
  a) Understand the system
  b) Correct formulation of action
  c) Understand the goal
  d) Provide recoverability tools

15- _____ use more than one sense of interaction
a) Multimedia system   b) Multimodal system   c) Multiaction system   d) Multifactor system

16- _____ the multiplicity of ways the user and system exchange information.
a) Learnability   b) Usability   c) flexibility   d) Robustness

17 - The level of support provided the user in determining successful achievement and assessment of goal-directed behaviour
a) Learnability   b) Usability   c) Synthesizability   d) Robustness

18- _____ determining effect of future actions based on past interaction history
a) Learnability   b) predictability   c) flexibility   d) Robustness

19- _____ ability of user to take corrective action once an error has been recognized
a) Recoverability   b) Observability   c) Responsiveness   d) Task conformance

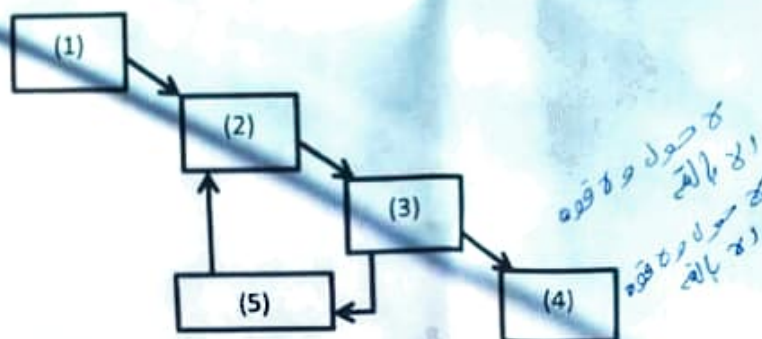Regarding Fig. 1, "Process of Design ". Answer the questions 20-22:

Fig. 1

20- The correct steps are as follows:
a- 1) specify goal, 2)design, 3)implementation, 4)test
b- 1) specify goal, 2)design, 3) analysis, 4) implementation
c- 1) specify goal, 2)analysis, 3)design, 4)implementation
d- 1) specify goal, 2)design, 3)implementation, 4)evaluation

21- Step 5, is _____ and it's important step to _____
a- Evaluation, enhance the goals.
b- Prototype, feedback the designers
c- Prototype, feedback the users
d- Test, find the new goals

22- Step 1, specifying goals is based mainly on _____
a- Test scenarios
b- Users' needs
c- Heuristic evaluation
d- Guideline principles

23- _____ the ease with which new users can begin effective interaction and achieve maximal performance.
a) Learnability   b) Usability   c) flexibility   d) Robustness

24- _____ rules are useful check list for good design
a) Heuristic   b) Standard   c) Guidelines   d) principles

25- Regarding human processor system, which one of the following systems is responsible for data processing?
a) Perceptual system   b) Cognitive system   c) interaction system   d) all parts are involved

26- What's the best describe of interface system?
a) Mediator
b) Intelligent agent
c) Interface replaces underlying system
d) All of the above

27- In HCI heuristic evaluation:
a) a group of usability experts judges an interface with a detailed checklist of guidelines.
b) a group of test users conducts a formal experiment.
c) a group of psychologists administers a questionnaire.
d) a group of usability experts reviews a user interface according to a small set of general principles

28- Which of the following are recognized kinds of scenarios?
a) communicate with others
b) validate other models
c) understand dynamics
d) all of them

29- 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 feedback actions.
d) Replacement of typed commands by a pointing action on the object of interest

30- What is the relationship between tasks, actions, and goals?
a) a task is composed of goals and actions to accomplish those goals
b) an action refines a task into a goal
c) ~~a task composed of a set of actions that accomplish a task~~
d) none of the above

goals   actions   task

Question (2): State whether these sentences are True or False   **(10 x 1.5 Marks)**

1- The Norman's cycle has 3 stages for execution and 3 stages for evaluation cycles
   a- True   b- False

2- Negative contrast improves reading from computer screen
   a- True   b- False

3- Environmental conditions (temperature, humidity) are Ergonomics examples
   a- True   b- False

4- Semantic LTM derived from episodic LTM
   a- True   b- False

5- Condition/action rule describes Scripts LTM model
   a- True   b- False

6- Abduction generalize from cases seen to cases unseen
   a- True   **b- False**

7- User mistakes occur if he has right intention, but failed to do it right
   a- True   **b- False**

8- Dealing with errors should follow interactivity design rules
   a- True   b- False

9- Usability engineering takes into considerations users differences
   a- True   b- False

10- Effectiveness is how you can do the task without wasting time
   a- True   **b- False**

Mansoura University
Faculty of Computers and Information
SE & Medical Informatics Programs

Human-Computer Interaction (IT326P)
Time allowed: 1h
June 8, 2021

Midterm, Practical, and Oral Exams – Model (1)

Midterm Exam [10 Points]

Q1: Choose the correct answer:

1. .... interaction involves a dialog with feedback and control throughout performance of the task.
   - a) Direct
   - b) Indirect
   - c) Good
   - d) Poor

2. Which of these is not an efficient interface style?
   - a) Command line/command prompt.
   - b) Menus
   - c) Natural Language
   - d) Voice Recognition

3. Which of the following is true about good design?
   - a) Good design depends on more graphics.
   - b) Good design satisfies cultures and believes.
   - c) Good design comes from iterative process based on user needs.
   - d) Good design means good GUI.

4. What is a semantic network?
   - a) A model for short term memory
   - b) A model for long term memory
   - c) A model for physical memory
   - d) A model for short and long term memory

5. Choose the correct sentence?
   - a) Speed is important for interactive devices.
   - b) Slips occur if a person has wrong intention. → mistake
   - c) Individuals' differences do not influence the design → effect
   - d) None of the above

Practical Exam [10 Points]

Q2: Choose the correct answer:

1. In .... relation, use case can be inserted into the behavior defined in the extended use case (optional).
   - a) Extend
   - b) Exclude
   - c) include
   - d) generalization

2. .... is the discipline of creating, analyzing and implementing ways for users to move through a website or app.
   - a) Navigation
   - b) prototype
   - c) HCI
   - d) None

3. ....is a navigation pattern lead the user step by step through the screens in a prescribed sequence Back/Next links are prominent on the page.
   - a) Hub and spoke
   - b) fully connected
   - c) Stepwise
   - d) None

4. Which of the following means doing the job correctly?
   - a) Effectiveness
   - b) Efficiency
   - c) Security
   - d) Usability

5. Which of the following means doing the job using less resources and time?
   - a) Effectiveness
   - b) Security
   - c) Usability
   - d) Efficiency

6. The system should always keep users informed about what is going on, through appropriate feedback within reasonable time is defined as ....
   - a) Visibility of system status
   - b) Consistency and standards
   - c) User control and freedom
   - d) Help

7. The goal of ...... is to improve the usability between users and computer.
   - a) HCI
   - b) CHI
   - c) interface design
   - d) a & b

8. The common goal of designing interactive system is to improve ....
   - a) designing the input, output.
   - b) designing the user interface
   - c) user experience
   - d) a & b

9. Actors in a use case may be ......
   a) People
   b) System
   c) interaction
   d) a & b
10. A sequence diagram shows the sequence of interactions that take place during a particular ......
   a) Use case
   b) Task
   c) a & b
   d) system

Q3: Choose the correct answer:

1. Which of these is not recommended in good HCI?
   a) Icons that have specific meaning
   b) Common shortcuts
   c) Voice that convey meaning
   d) Long command line that achieve meaning

2. Is the default style of the majority of HCI design
   a) ASCII
   b) GUI
   c) IDE
   d) WIMP

3. The difference between intention and allowable action is known as:
   a) Gulf of execution
   b) Gulf of interaction
   c) Gulf of evaluation
   d) None of these

4. Which of the following fields is not influence HCI?
   a) Ergonomics
   b) Cognitive psychology
   c) Computer science
   d) All influence HCI

5. Which of the following is NOT an example of ergonomic?
   a) Arrangements of control and display
   b) Use of color
   c) Surrounding environments
   d) Cultural believes.

Best Wishes

Assoc. Prof. Noha Ahmed Hikal