



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

*Academic Year 2018 – 2<sup>nd</sup> Year Examination – Semester 3*

***IT3405 – User Interface Design***  
***Part 1 - Multiple Choice Question Paper***

***13<sup>th</sup> May 2018***  
***(ONE HOUR)***

Important Instructions :

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- The paper has **25 questions** and **06 pages**.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with **one or more** correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 (*All the incorrect choices are marked & no correct choices are marked*) to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.  
If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**
- Calculators are **not** allowed.

1) What does WIMP stand for in HCI?

- (a) Windows, Interfaces, Menus, Pointers
- (b) Widgets, Icons, Menus, Pointers
- (c) Windows, Icons, Menus, Pointers
- (d) Widgets, Interfaces, Menus, Pointers
- (e) Web browsers, Icons, Menus, Palettes

2) Complete the blank spaces of the following sentence.

\_\_\_\_\_ occur through conscious deliberation while \_\_\_\_\_ are unintentional.

- |                     |                   |                      |
|---------------------|-------------------|----------------------|
| (a) Slips, mistakes | (b) Errors, slips | (c) Mistakes, errors |
| (d) Mistakes, slips | (e) Slips, Errors |                      |

3) Complete the following sentence.

The Gulf of Execution refers to \_\_\_\_\_

- |                                                                                                         |
|---------------------------------------------------------------------------------------------------------|
| (a) the system's difficulty in converting an input expression into the correct system state transition. |
| (b) the system's difficulty in presenting information in the output language.                           |
| (c) the user's difficulty in understanding the feedback from the system.                                |
| (d) the user's difficulty in formulating and articulating an intention to the system.                   |
| (e) None of the above                                                                                   |

4) GOMS stands for:

- |                                                     |
|-----------------------------------------------------|
| (a) Goals, Objects, Models, and Selection rules     |
| (b) Goals, Operations, Methods, and State rules     |
| (c) Goals, Operations, Models, and State rules      |
| (d) Goals, Operations, Methods, and Selection rules |
| (e) Goals, Objects, Methods, and Selection rules    |

5) Direct interaction connects man and machine explicitly in several ways. Which of the following is/are such interaction(s) in a word processor?

- |                                                                         |
|-------------------------------------------------------------------------|
| (a) Clicking the Save button                                            |
| (b) Highlighting spelling mistake                                       |
| (c) Recovering documents due to a program error or an abnormal shutdown |
| (d) Changing the font                                                   |
| (e) Open an existing document                                           |

6) Which of the following is/are (an) advantage(s) of personas?

- (a) They are difficult and takes time to create
- (b) They provide a consistent model for all team members
- (c) They are easy to use with other design methods
- (d) They make the user real in the mind of the designer
- (e) They provide support for clearer and better decision making

7) Which of the following is/are (an) advantage(s) of Low-fidelity prototypes?

- (a) They can be used early and often
- (b) They are expensive and difficult to create
- (c) They can be used to calculate response timings
- (d) They make the design idea visual
- (e) No special knowledge is required, all team members can create them

8) Which of the following is/are (a) disadvantage(s) of a Command Line Interface?

- (a) Low command retention
- (b) Steep learning curve
- (c) Low memory requirements
- (d) Low error rates
- (e) Frustrating for novice users

9) Which of the following is/are true regarding human memory?

- (a) LTM is optimized by spreading learning over time
- (b) Information moves from STM to LTM through rehearsal
- (c) Retroactive interference can happen in STM
- (d) Proactive inhibition can happen in LTM
- (e) “Sparkler” trail is an evidence that shows humans have STM

10) You drag a folder to make a copy of its contents. An animation appears on the screen, showing files moving from one folder to another. This is an example of which of the following:

- |                |                  |                |
|----------------|------------------|----------------|
| (a) Visibility | (b) Mapping      | (c) Affordance |
| (d) Feedback   | (e) Conviviality |                |

11) User Experience (abbreviated “UX”) is

- (a) Specific just to the user's speed in learning a designed interface
- (b) Focuses on feelings or “felt” experiences in using an interface
- (c) Widely covers issues of performance, affect and user satisfaction
- (d) Only directly observed through user behaviors
- (e) Always fully “objective” or non-judgmental

12) Complete the blank space of the following sentence.

\_\_\_\_\_ is a term used to refer to an attribute of an object that allows people to know how to use it.

- |                 |                 |                |
|-----------------|-----------------|----------------|
| (a) Consistency | (b) Visibility  | (c) Affordance |
| (d) Constraint  | (e) Flexibility |                |

13) An example of a metaphoric representation in user interface design is

- (a) Using fixed standards to make easier use
- (b) Combining functional and cultural interfaces
- (c) A virtual bookshelf to show on-line books bought
- (d) A “genre” like a family album
- (e) A paradigm shift, say from a mouse-based to a touch-based interface

14) An icon of a file folder, where users can drag and drop files on in order to move them into the folder, is an example of which of the following:

- (a) User control and freedom
- (b) The "recognition rather than recall" principle
- (c) Direct manipulation
- (d) A metaphor
- (e) Error prevention

15) Which of the following is/are not essential for accessibility?

- |           |            |            |
|-----------|------------|------------|
| (a) Taste | (b) Vision | (c) Haptic |
| (d) Audio | (e) Smell  |            |

16) Which of following is/are (an) effective rule(s) used in usability?

- |                      |                         |                     |
|----------------------|-------------------------|---------------------|
| (a) Make it readable | (b) Don't make me think | (c) Make it obvious |
| (d) Make it curious  | (e) Show my way         |                     |

- 17) The following two groups A and B are related to novel interface design. Select the **correct matching** between items in group A with appropriate ones in group B.

Group A	Group B
A1. Multitasking	B1. Modify the device to facilitate a user to perform tasks easily.
A2. Multiple ways	B2. Some people like to do tasks in a specific way
A3. Simplify the interface	B3. Single device to perform multiple tasks
A4. Customization	B4. The device can be handled in different ways to do the same task
A5. Personalization	B5. A device can be used to increase the productivity

- (a) A1→B3, A2→B4, A3→B5, A4→B1, A5→B2  
(b) A1→B1, A2→B2, A3→B3, A4→B4, A5→B5  
(c) A1→B5, A2→B4, A3→B3, A4→B2, A5→B1  
(d) A1→B4, A2→B1, A3→B5, A4→B3, A5→B2  
(e) A1→B2, A2→B3, A3→B1, A4→B4, A5→B5

- 18) Gesture-based interaction promotes the natural interaction in several ways. Which of the following is/are (an) example(s) of gesture-based interaction?

- (a) Clicking on a button.  
(b) Enlarging the view using two fingers on the touchpad  
(c) Interaction with physical devices.  
(d) Playing a Car game using a joystick in Linux environment.  
(e) Browsing on a touch screen of an MS Windows 8 machine

- 19) Which individual proposed the idea of “man-computer symbiosis”?

- (a) Douglas Engelbart                      (b) J.R. Licklider                      (c) Alan Kay  
(d) Tim Berners Lee                      (e) Vannevar Bush

- 20) An Affordance

- (a) is the cost of buying a user interface component  
(b) indicates the completion time for a typical task  
(c) is a model to describe the interaction  
(d) is an important aspect of usability  
(e) is an attribute of something that influences how it can be used

21) Which of the following is/are (a) benefit(s) of User Centered Design (UCD)?

- (a) Reduces the number of decisions made out of the blue
- (b) Designers can quickly design without considering human attributes
- (c) Helps to debug the code more efficiently
- (d) Helps to focus on design activities
- (e) Helps to document and defend decisions that may be reviewed later

22) Which of the following is/are (a) benefit(s) of user scenarios?

- (a) Provide ability to communicate a design with others
- (b) Support validation of other models
- (c) Show functionalities of the final design
- (d) Help to understand dynamics
- (e) Alternative paths are excluded

23) Which of the following is/are (a) level(s) of the human memory?

- (a) Short-Term Memory
- (b) Sensory Memory
- (c) Echoic Memory
- (d) Long-Term Memory
- (e) Haptic memory

24) Which of the following interface design principle(s) reduce(s) the user's memory load?

- (a) Define intuitive shortcuts
- (b) Disclose information in a progressive fashion
- (c) Establish meaningful defaults
- (d) Provide an online tutorial
- (e) Provide visual cues

25) Which of the following is/are true regarding human reasoning?

- (a) Abductive reasoning is reasoning from event to cause
- (b) Deductive reasoning is based on generalizations
- (c) Abductive reasoning can lead to false explanations
- (d) Inductive and abductive reasoning can both be unreliable
- (e) Deductive reasoning always results in true logical conclusions

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