



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2021 – 2nd Year Examination – Semester 4

IT4106 – User Experience Design
Part 1 - Multiple Choice Question Paper

(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 **5 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 +2 (*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.
- *All Rights Reserved.*

- 1) Select the most suitable term from the given to fill the blank in the following statement.

A paradigm is a set of _____ that constitutes a way of viewing reality for the community that share them.

- (a) Beliefs
- (b) Designs
- (c) Theories
- (d) Rules
- (e) Artifacts

- 2) Which of the following represent the correct order of (4) four stages of the double diamond process?

- (a) Discover, Define, Develop, Deliver
- (b) Define, Discover, Deliver, Develop
- (c) Discover, Develop, Define, Deliver
- (d) Define, Develop, Deliver, Discover
- (e) Define, Develop, Discover, Deliver

- 3) Which of the following interaction type was introduced most recently (latest mode of interaction)?

- | | | |
|-----------------------|------------------|---------------|
| (a) Instructing | (b) Conversing | (c) Exploring |
| (d) <u>Responding</u> | (e) manipulating | |

- 4) Which of the following is/are true about good design?

- (a) Good design is mostly focused on cool graphics
- (b) Good design is a product that functions as per user requirement.
- (c) Good design can come from fixing the UI at the end
- (d) Good design is any design that looks attractive to a user
- (e) Good design comes from an iterative process with the user in the loop

- 5) Which of the following examples of aspects of cognition come(s) under reflective cognition?

- (a) Driving a car
- (b) Reading a book
- (c) Writing a report
- (d) Having a conversation
- (e) Designing a draft

- 6) What is the cognitive process that allows people to focus on a specific stimulus in the environment?

- | | | |
|----------------------|----------------|------------|
| (a) <u>Attention</u> | (b) Perception | (c) Memory |
| (d) Learning | (e) Reasoning | |

- 7) What is the cognitive process that refers to how information is acquired from the environment via the five sense organs and transformed into experiences?

- | | |
|---------------|-----------------------|
| (a) Attention | (b) <u>Perception</u> |
| (c) Memory | (d) Learning |
| (e) Reasoning | |

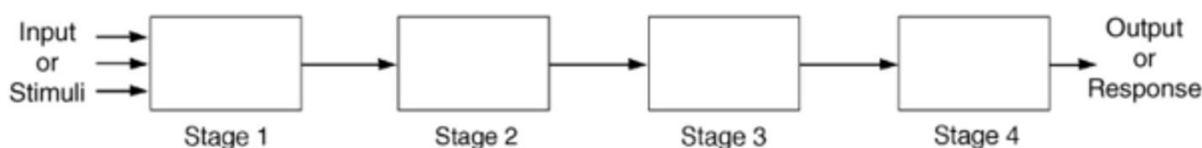
- 8) To develop an effective user experience, all design should begin with which of the following?

- | |
|---|
| (a) Evaluating the model chosen for the given task |
| (b) Identifying a suitable UI framework based on updated trends |
| (c) Categorizing the users as novices, knowledgeable, intermittent users |
| (d) Developing a model to accommodate the information contained in the user model |
| (e) <u>Understanding of the intended users with age, gender, education, cultural background etc</u> |

- 9) Which of the following shows the correct sequence of the user-centered design process

- | |
|--|
| (a) Specify Requirement→Understand→Evaluate against requirements→Design Solutions |
| (b) Specify Requirement→Understand→ Evaluate against requirements → Design Solutions |
| (c) Specify Requirement→Understand→ Design Solutions → Evaluate against requirements |
| (d) Understand → Design Solutions → Specify Requirement → Evaluate against requirements |
| (e) <u>Understand → Specify Requirement → Design Solutions → Evaluate against requirements</u> |

- 10) Given below is an illustration of the human processor model used in cognitive frameworks.



which of the following represent(s) the correct sequence of the stages of the human processor model.

- | |
|---|
| (a) Encoding→Compression→ Response selection→ Decoding |
| (b) Encoding→ Comparison→ Response selection→ Decoding |
| (c) <u>Encoding→ Comparison→ Response selection→ Response execution</u> |
| (d) Encoding→ Response selection → Comparison → Response execution |
| (e) Encoding→ Compression → Response selection→ Response execution |

- 11) “.....is concerned with explaining the cognitive processes involved when we interact with different representations such as graphical images, multimedia, and virtual reality.”

Which of the following is most suitable to fill the blank in the above statement?

- | | | |
|---------------------------|-------------------------------|------------------------|
| (a) distributed cognition | (b) <u>External cognition</u> | (c) Internal cognition |
| (d) Co-presence | (e) Computational offloading | |

- 12) “.....is supporting people in their activities when interacting in the same physical space.”
Which of the following is most suitable to fill the blank in the above statement?
- | | | |
|---------------------------|------------------------------|---------------------------|
| (a) distributed cognition | (b) External cognition | (c) distributed cognition |
| (d) <u>Co-presence</u> | (e) Computational offloading | |
- 13) What is the interface which provides tactile feedback?
- | | | |
|-----------------------------|-------------------------|------------------------|
| (a) <u>Haptic Interface</u> | (b) Single touch screen | (c) Multitouch Surface |
| (d) Embedded Interfaces | (e) WIMP | |
- 14) Which of the following is/are (an) example(s) for a Contextual Menu?
- | | | |
|------------------------|-----------------------|-------------------|
| (a) Pull-down menu | (b) Drop-down menu | (c) Pie-menu menu |
| (d) <u>Pop-up menu</u> | (e) Hierarchical menu | |
- 15) “In _____, three dimensional virtual images appear superimposed over real objects”
Which of the following is most suitable to fill the blank in the above statement?
- | | | |
|--------------------------------|-------------------------------|---|
| (a) Virtual Reality interfaces | (b) Mixed reality interfaces | (c) <u>Augmented Reality interfaces</u> |
| (d) Tangible interfaces | (e) Brain Computer Interfaces | |
- 16) Which of the following is/are non- probability sampling techniques used in gathering data ?
- | | | |
|---------------------------------|-------------------------------|------------------------------|
| (a) Random Sampling | (b) Systematic Sampling | (c) <u>Snowball Sampling</u> |
| (d) <u>Convenience Sampling</u> | (e) <u>Purposive sampling</u> | |
- 17) Which of the following is the best example of triangulation in data gathering?
- | |
|---|
| (a) Collecting information from multiple sources |
| (b) Using multiple researchers in a user- centered evaluation |
| (c) Using different theories with which to interpret data |
| (d) <u>Collecting data from users in different ways with different methods</u> |
| (e) Collecting information about user mental model, conceptual model and system image |
- 18) Which of the following statements with regards to engaging users with probes is/are **TRUE**.
- (i) Design probes, technology probes and provocative probes are three main types of probes
(ii) Design probes are a subgroup of technology probes designed to challenge existing norms
(iii) Top trump probe is a popular example for a use of design probes
- | | | |
|---------------------------|-------------------|-------------------|
| (a) i only | (b) ii only | (c) i and ii only |
| (d) <u>i and iii only</u> | (e) i, ii and iii | |
- 19) Which of the following is/are (an) approaches to conduct a qualitative analysis.
- | | | |
|--------------------------------|---|-------------------------|
| (a) correlation analysis | (b) <u>Thematic analysis</u> | (c) Regression analysis |
| (d) <u>Data categorization</u> | (e) <u>Analyzing critical incidents</u> | |

- 20) “_____ focuses on how words are used to Convery meanings and aims at identifying implicit meanings in texts.”
Which of the following is most suitable to fill the blank in the above statement?
- | | | |
|-------------------------------|--------------------------|---------------------|
| (a) <u>Discourse analysis</u> | (b) Content analysis | (c) Grounded theory |
| (d) Conversation analysis | (e) Interaction analysis | |
- 21) Which of the following does the term “Fidelity of Prototypes” refers to?
- | |
|---|
| (a) <u>the level of details and functionality built into a prototype</u> |
| (b) the number of functionalities built into a prototype |
| (c) the test case coverage of the prototype with reference to the final product |
| (d) the amount of work required to finalize the product |
| (e) <u>how the prototype conveys the look-and-feel of the final product</u> |
- 22) Which of the following is/are core components of a conceptual model?
- | |
|--|
| (a) <u>metaphor and analogies</u> |
| (b) <u>the concepts to which users are exposed</u> |
| (c) issues related to user characteristics and context |
| (d) <u>the relationship between the concepts to which users are exposed</u> |
| (e) <u>the mappings between the concepts and user experience being supported</u> |
- 23) Which type of problems are identified as “wicked problems” in the design thinking approach
- | |
|--|
| (a) <u>ill-defined problems</u> |
| (b) <u>Unknown problems</u> |
| (c) Problems that are hard to tackle |
| (d) Problems that are known but hard to tackle |
| (e) Problems that cannot be defined. |
- 24) Evaluations that take place without involving users are conducted in settings where the researcher has to imagine or model how an interface is likely to be used.
In such a scenario, which of the following techniques can a UX researcher use to evaluate their designs?
- | | | |
|---------------------------------|-------------------------|--------------------------------|
| (a) <u>Heuristic evaluation</u> | (b) <u>walkthroughs</u> | (c) <u>Predictive modeling</u> |
| (d) Ethnography | (e) Design thinking | |
- 25) Which of the following is/are (a) part of Jakob Nielsen's 10 general principles for interaction design?
- | | | |
|--|------------------------------------|--------------------------------------|
| (a) <u>Visibility of System Status</u> | (b) <u>Error Prevention</u> | (c) <u>Consistency and Standards</u> |
| (d) <u>Aesthetic and Minimalist Design</u> | (e) Recall rather than recognition | |
