



SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Information Technology
First Year, Second Semester Examination – 2022
HNDIT2052 - Principles of User Interface Design

Instructions for Candidates:

Answer any five (05) questions.

Every question carries 20 marks

No. of questions : 06

No. of pages : 03

Time : Three (03) hours

Question 01.

- (i). What is Human-Computer Interaction (HCI)? [04 Marks]
 - (ii). What are the components of HCI? Describe each component listed. [04 Marks]
 - (iii). Mention 04 characteristics of human users that need to be consider when designing interactive systems? [04 Marks]
 - (iv). Explain how present HCI differ from past HCI? [04 Marks]
 - (v). “User-centered design is one of the key aspects in HCI” Do you agree with the statement? Justify your answer. [04 Marks]
- [20 Marks]**

Question 02.

- (i). Describe the followings types of typefaces. [04 Marks]
 - (a). Serif font
 - (b). Sans-Serif font
 - (c). Script
 - (d). Monospaced
- (ii). List 04 factors to be consider when selecting the font(s) for the SLIATE website. [04 Marks]
- (iii). Select the right answer for blanks from the given list. [04 Marks]
 - (a). typeface is better for digital interfaces. (*serif, san-serif*)
 - (b). is the distance between two baselines of text. (*kerning, leading, tracking*)
 - (c). is a primary color. (*Yellow, Blue, White,*)
 - (d). color model is used for printed material. (*CMYK, RGB*)

- (iv). Identify the color palette described in each given context below. [04 Marks]
- (a). The color scheme that is based on three separate colors that are equidistant on the color wheel.
 - (b). The color scheme that is one constructed of various hues, values, and intensities of a single color
 - (c). The color scheme that is formed of three colors that are located next to each other on the color wheel.
 - (d). The color scheme that is comprised of colors that are placed in front of each other on the color wheel (opposite colors).
- (v). "A deep understanding of colors is essential for effective design" Do you agree with the statement. Justify your answer. [04 Marks]
- [20 Marks]**

Question 03.

- (i). Define Ergonomic in UI designing? Give 02 benefits of Ergonomic interface. [04 Marks]
- (ii). Differentiate between *Wireframes* and *Prototype* in the context of UI design. [04 Marks]
- (iii). List 02 Wireframe applications (Wireframe Apps) and 02 advantages of wireframing. [04 marks]
- (iv). Draw a low-fidelity wireframe for the interface provided below.



[04 Marks]

- (v). Windows, Icons, Menus, and Pointers (WIMP) are fundamental components in Graphical User Interface (GUI) design. Explain how these components work together to create an interactive user interface that allows users to interact with software effectively. [04 Marks]
- [20 Marks]**

Question 04.

- (i). Describe the PACT framework including its elements? [04 Marks]
- (ii). Explain the following principles of Don Norman's seven design principles.
- (a). Make things visible. [02 Marks]
- (b). Design for error. [02 Marks]
- (iii). Describe the "Strive for consistency" is one of Shneiderman's Eight Golden Rules. Provide 02 examples of consistent design elements [04 marks]
- (iv). Mention 04 advantages of User-Centered Design? [04 Marks]
- (v). Design principles do not guide you to create a User-centered design. Do you agree with statement? Justify your answer. [04 Marks]
- [20 Marks]**

Question 05.

- (i). What are the primary stages in the User Interface Design process? [04 Marks]
- (ii). What is a scenario in interface design? [04 Marks]
- (iii). List 04 methods can be used to gather user data? [04 Marks]
- (iv). Explain how the *Task Analysis* helps to create a good user-centered design. [04 Marks]
- (v). "*Iterative designing is one of the best approaches for interaction designing.*" Do you agree with the statement? Justify your answer. [04 Marks]
- [20 Marks]**

Question 06.

- (i). What is *usability* in the context of UID. [04 Marks]
- (ii). Explain the importance of *usability* of your design. [04 Marks]
- (iii). What role does *feedback* play in usability? Explain how can it be effectively implemented? [04 Marks]
- (iv). Identify 02 main issues that designers face in user interface designing. [04 Marks]
- (v). Building a correct mental model through design is crucial for achieving usability. Do you agree with the statement. Justify your answer. [04 Marks]
- [20 Marks]**