

KATHMANDU UNIVERSITY  
End Semester Examination  
February/March, 2018

Marks scored:

Level : B.Sc.

Course : COMP 341

Year : III

Semester : II

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date : MAR 14 2018

SECTION "A"

[20 Q.× 0.5=10 marks]

Tick [✓] the most appropriate answer.

- Which one of these is a good reason for taking care to design a good computer human interface?  
 Not every user is a computer expert  
 Well designed HCIs allow the software to be sold at a better price  
 Well designed HCIs use less computer resources  
 Well designed HCIs allow the computer to run faster
- Which of the following sentences is false in case of Thinking aloud testing?  
 slows down the user by about 17%       cannot provide performance data  
 cannot provide process data       is a formative evaluation method
- Which of the following is concerned primarily with understanding human behavior and the mental processes that underlie it?  
 Psychology       Sociology       Statistics       Computer Science
- Which of this is an attribute of usability?  
 Portability       Usefulness  
 Generalizability       Subjective satisfaction
- \_\_\_\_\_ are individual and isolated regions within display that can be selected by the user to invoke specific operations.  
 Buttons       Pointers       Menus       Windows
- The size and shape of a compact disk, is a type of \_\_\_\_\_ constraint.  
 physical       logical       cultural       manual
- Certain factor that helps us to interact with graphical based systems is?  
 Indirect Manipulation       Direct Manipulation  
 Command Language       Graphical User Interface
- Currently many common environments for interactive computing are examples of the interface style, often simply called windowing system.  
 Three dimensional       WIMP  
 Point and click       Two dimensional
- Which of the following requires less cognitive effort than others?  
 Listening       Browsing       Speaking       Interacting

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:  
 visibility             feedback             mapping             an affordance
11. Which of these is not an interface style?  
 Command line/command prompt             Menus  
 Natural Language             Voice Recognition
12. A small picture that is used to represent a closed window is said to be a/an:  
 Menu             Toolbar             Status Bar             Icon
13. Which of the following statement is not appropriate in knowing the user in the usability engineering lifecycle?  
 Draw up a user profile  
 Run a think aloud test  
 Assume the role of an apprentice learning from the master craftsman  
 Observe representative users
14. \_\_\_\_\_ refers to the relationship between controls and their effects in the world.  
 Visibility             Affordance             Mapping             Constraint
15. A \_\_\_\_\_ is usually a collection of icons those are reminiscent of the purpose of the various modes.  
 Button             Pointer             Palette             Title bar
16. Which of the following devices cannot be useful for a visually impaired person?  
 a typical keyboard    a typical monitor    a typical speaker    a typical processor
17. Which are the most significant senses for the average person when it comes to interacting with a computer?  
 sight and hearing             hearing, touch and smell  
 hearing and touch             sight, hearing and touch
18. Which of the following is not one of the goals of HCI?  
 To produce usable systems             To produce safe systems  
 To produce non-functional systems    To improve effectiveness of the systems
19. Building things from user's perspective is called .....  
 Functionality             Usability             Portability             Reliability
20. The command line interface is used because:  
 It is easy to understand             It is demanded by DOS  
 It is offered by UNIX systems             It is powerful and flexible

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SECTION "B"

[6 Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. What is *participatory design*? Why is *subjective satisfaction* difficult to measure?
2. What impact does *perception* have on *human computer interaction*? Explain with suitable examples.
3. Briefly describe four situations when you might use a *tracker ball* rather than a *mouse*.
4. What are the differences between *long* and *short term memory* with suitable examples?
5. How would you identify the needs of mobile users accessing the page? Keep in mind that the page needs to provide the same functionality and content as the current page. So you need to focus on identifying layout-related needs.
6. Would you use a *voice recognition system* or ask the user to push phone buttons to enter responses? Explain the relative advantages and disadvantages of each for this particular situation.
7. Why can it be particularly difficult for designers to obtain an impression of an *expert user's mental model* of an interactive computer system?

SECTION "C"

[2 Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. What is *user-centered design*? How does evaluation fit into a *user centered design lifecycle*? What is the aim of evaluation? Who should use evaluation? Also describe two techniques for evaluation, highlighting their key points and the differences between them.
9. Define *user interface*? Explain *usability goals* with suitable examples. How would you manage your new design? Explain in terms of different methods that you find appropriate with proper justifications.
10. Briefly explain why *Determining User Skill Levels* are important while developing a user interface. Contrast the different problems that can arise when designers attempt to identify the requirements for interactive systems from *novice* and *expert users*.

