

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 49220**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Elective

Computer Science and Engineering

14UCS920 - HUMAN COMPUTER INTERACTION

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Which of the following fields is not an influence on HCI?  
(a) ergonomics (b) cognitive psychology  
(c) computer science (d) all of the above
- \_\_\_\_\_ have two orthogonal dials to control the cursor position.  
(a) Mouse (b) Joystick (c) Thumbwheels (d) Trackballs
- The network diagram shows  
(a) what leads to what (b) what happens when  
(c) Branches and loops (d) All of the mentioned
- \_\_\_\_\_ is a graphical depiction of the outward appearance of the intended system, without any accompanying system functionality.  
(a) Animation (b) Storyboard (c) Simulation (d) HyperCard
- \_\_\_\_\_ attempts to deal with some of these problems by including elements such as parameterized grammar rules to emphasize consistency and encoding the user's world knowledge.  
(a) Task action grammar (b) Backus–Naur Form  
(c) Cognitive complexity theory (d) None of the mentioned
- \_\_\_\_\_ is design in the workplace, where the user is involved not only as an

experimental subject or as someone to be consulted when necessary but as a member of the design team.

- (a) Conceptual design
- (b) Soft systems method
- (c) Participatory design
- (d) ETHICS method

7. \_\_\_\_\_ platforms are designed and developed by device makers for use on their devices.

- (a) Licensed platforms
- (b) Proprietary platforms
- (c) Open source platforms
- (d) None of the mentioned

8. \_\_\_\_\_ is the design of how the user can participate with the information present, either in a direct or indirect way.

- (a) Information design
- (b) Navigation design
- (c) Interface design
- (d) Interaction design

9. Gmail is a good example of actions in concert with \_\_\_\_\_ selection.

- (a) Toggle Selection
- (b) Object Selection
- (c) Collected Selection
- (d) Hybrid Selection

10. The \_\_\_\_\_ overlay allows an overlay to present additional information when the user clicks or hovers over a link or section of content.

- (a) Dialog Overlay
- (b) Detail overlay
- (c) Input Overlay
- (d) Output overlay

PART - B (5 x 2 = 10 Marks)

11. Write note on gestalt theory of problem solving.

12. Give a model of Interaction design process.

13. Classify stakeholders of an airline booking system.

14. What is mobile HCI?

15. List the various page elements.

PART - C (5 x 16 = 80 Marks)

16. (a) Explain in detail about human input and output channels. (16)

Or

- (b) (i) Identify input and output devices used for digital cartographic system. For each, compare and contrast alternatives, and indicate why conventional keyboard, mouse and CRT screen may be less suitable? (8)
- (ii) Explain the stages in Norman's model of interaction.

17. (a) (i) Write a scenario for the personal movie player. (8)
- (ii) Illustrate application functional hierarchy with neat block diagram. (8)

Or

- (b) (i) Discuss the activities in software life cycle with neat sketch. (8)
- (ii) Mention and Explain Nielsen's ten heuristics. (8)

18. (a) (i) Create a GOMS description of the task of photocopying an article from a journal. Discuss the issue of closure in terms of your GOMS description. (8)
- (ii) Briefly describe the key stages of CUSTOM analysis. (8)

Or

- (b) (i) Explain Effective Technical and Human Implementation of Computer- based Systems (ETHICS) and how the design groups then address the following issues and activities. (8)
- (ii) Describe and discuss about many applications of hypermedia. (8)

19. (a) (i) Describe the layers of the mobile ecosystem with neat sketch. (8)
- (ii) Illustrate clickstreams with an example clickstream for an iPhone web application. (8)

Or

- (b) Discuss in detail about the Elements of Mobile Design. (16)

20. (a) Explain and analyze the contextual tools in detail. (16)

Or

- (b) Give explanation in detail about Dialog Inlay, List Inlay, and Detail Inlay? (16)

