Question Paper Code: 49220

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

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)

1. _____ are highly sensitive to light and therefore allow us to see under a low level of illumination.

    (a) Cones   (b) Rods   (c) Lens   (d) Retina

2. _____ have two orthogonal dials to control the cursor position.

    (a) Mouse   (b) Joystick   (c) Thumbwheels   (d) Trackballs

3. The network diagram shows

    (a) what leads to what   (b) what happens when

    (c) Branches and loops   (d) All of the mentioned

4. 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) an affordance   (d) feed back

5. _____ 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

6. _____ 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. What is the relationship between tasks, actions, and goals?

    (a) a task is composed of goals and actions to accomplish those goals

    (b) an action reifies a task into a goal

    (c) a goal is composed of a set of actions that accomplish a task

    (d) none of the above

10. The Num Lock key found on many keyboards, which enables the user to use the number functions of the numeric keypad rather than the cursor control functions, indicates which of the following features is present:

    (a) a mode   (b) a quasi-mode

    (c) a physical constraint   (d) a logical constraint

PART - B (5 x 2 = 10 Marks)

11. List the techniques in problem solving

12. Give a model of Interaction design process.

13. Explain Pros and cons of stack holder requirements. .   .

14. What is mobile HCI?

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15. Define process flow.   .

PART - C (5 x 16 = 80 Marks)

16. (a) (i) Briefly discuss about human memory systems.   (8)

    (ii) Elucidate various text entry devices.   (8)

                                  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) Explain in detail about communication and collaboration models.   (16)

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)

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20. (a) Elaborate the patterns that support virtual pages. (16)

Or

(b) Give explanation in detai labout Dialog Inlay,List Inlay, and Detail Inlay? (16)

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