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B.E / B.Tech (FT) END SEMESTER EXAMINATIONS – APRIL / MAY 2019

INFORMATION TECHNOLOGY

VII Semester

IT8703 PRINCIPLES OF HUMAN COMPUTER INTERACTION

(Regulation2012.....)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. Write down the devices needed for interacting with virtual reality enabled applications.
2. Define Ergonomics. What is the significance of ergonomics in HCI?
3. Draw the transition states of a Light pen..
4. What are the three different forms of utterances in conversations?.
5. How do Golden rules help interface designers take account of cognitive psychology? Illustrate your answer with example.
6. Write a sample Usability specification for undo with a VCR.

7.



Comment on the design principles used in the above interface.

8. List the challenges involved in using Speech as an interface?
9. What are virtual collaborative environments? Where are they used?
10. Justify the statement "Lost in Hyperspace"?



Part – B (5 x 16 = 80 marks)

(Question No.11 is Compulsory)

11. (i) Differentiate Long term memory and Short term memory.(8)
(ii) Using the elements involved in WIMP interface, design an interface for an online flight ticket booking site and justify the usage of elements.(8)
12. a) Discuss the elements involved in a GOMS model and write a GOMS description of "Moving mouse over the menu bar and press centre mouse button". (16)
(OR)
b) Give example of a sensor based interaction model and also discuss on the challenges involved in the design of the model. Also draw a Concur Task Tree using a Hierarchical Task Model for the above.(16)
13. a) (i) Compare and contrast Standards and Guidelines.(8)
(ii) Discuss on the implication of screen design and layout in Human interaction with an example E commerce website.(8)

(OR)

- b) (i) Using iterative design and prototyping mode, I design an interface for a gaming website. (8)
(ii) Give a summary of specific principles that support learnability with an example application in each case. (8)

14. a) Choose an appropriate evaluation method and identify the participants, the technique used and other related parameters in the design of a Spreadsheet package. (16)

(OR)

- b) How will you design user support systems? Discuss on the various types of support systems with an example for each type. (16)

15. a) Data visualization techniques have often increased our comprehension of phenomenon. Consider an example application interface which uses the above techniques and discuss on the design, implementation and user support related to it. (16)

(OR)

- b) What factors are likely to delay the widespread use of video in interfaces? What can be an alternative for the above? Take an example application and discuss on the human factors involved, the paradigm used, the design rules used and the evaluation techniques to be used. (16)

