

Total No. of Questions : 12]

SEAT No. :

P3645

[4758]-106

[Total No. of Pages : 3

T.E. (Information Technology)
HUMAN COMPUTER INTERACTION AND USABILITY
(2008 Pattern) (Semester-II)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Use of logarithmic tables and electronic pocket calculator is allowed.*
- 4) *Figures to the right indicate full marks.*
- 5) *Assume suitable data, if necessary.*

SECTION-I

Q1) a) Human memory plays an important role in how well people deal with an interface. Describe two important differences between Short-Term Memory and Long-Term Memory. **[8]**

b) Discuss general principles and goals of user interface design. **[8]**

OR

Q2) a) Define Ergonomics. Explain with example. **[8]**

b) What is reasoning? Discuss with example Inductive versus Deductive Reasoning. **[8]**

Q3) a) Describe how HCI affects use of Library Management system with respect to: **[10]**

i) The aim of the program (what it is used for)

ii) Describe its interface (picture of the screen)

iii) Describe its interaction (how it is used)

b) Express your opinion - "A design should be User-Centric". **[8]**

OR

P.T.O.

Q4) a) Discuss how social environment influences the interactions with the computer. What effect does the organization (commercial or academic) to which you belong have on the interaction? [10]

b) Describe briefly four different interactions styles used to accommodate the dialog between user and computer. Specify advantages and disadvantages of each interaction style. [8]

Q5) a) A practical usability engineering process that can be incorporated into the software product development process to ensure the usability of interactive computer products is presented. Explain your view regarding usability engineering life cycle for online hospital management system. [8]

b) Evaluate Microsoft Word interface using the “Eight golden rules of interface design”. [8]

OR

Q6) a) Why is context important in selecting and applying guidelines and principles for interface design? Illustrate your answer with examples. [8]

b) A practical usability engineering process that can be incorporated into the software product development process to ensure the usability of interactive computer product is presented. Explain your view regarding usability engineering life cycle for online hostel booking management system. [8]

SECTION-II

Q7) a) What is DECIDE? List and explain unique phases of DECIDE framework. [10]

b) Compare: Formative Evaluation versus Summative Evaluation. [8]

OR

Q8) a) Discuss the characteristics, guidelines and principles of good web page design. [10]

b) Explain in brief Hutch World Case Study evaluation framework. [8]

Q9) a) Hierarchical Task Analysis (HTA) is used to describe the interactions between a user and a software system. Draw and explain HTA to online bus reservation system. [8]

b) Give any two diagrammatic or textual notations used to design dialogs in effective user interface. Justify your notations with respective examples. [8]

OR

Q10)a) What is Cognitive Model? Discuss with example. [8]

b) What is Dialog? Explain different diagrammatic dialog design notations. [8]

Q11)a) Compare - Augmented Reality versus Virtual Reality. [8]

b) Discuss Augmented reality use for Aircraft. [8]

OR

Q12) Write a short note on: [16]

a) Information and data visualization.

b) Synchronous and asynchronous groupware applications.

