

Total No. of Questions : 11]

SEAT No. :

P2465

[5153]- 99

[Total No. of Pages : 2

T.E. (I.T.)

**HUMAN COMPUTER INTERACTION AND USABILITY
(2008 Pattern) (Semester - II)**

Time :3 Hours]

[Max. Marks :100

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10 and Q.11.*
- 2) *Draw neat diagrams whenever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

SECTION - I

Q1) a) Differentiate between human short-term memory and long-term memory. **[8]**

b) What is interaction design? What are goals of interaction design? **[8]**

OR

Q2) a) What is ergonomics? Discuss importance of human factors in human-computer interaction design. **[8]**

b) What are models of interaction? Explain any one model in details. **[8]**

Q3) a) Describe briefly four different interactions styles used to accommodate the dialog between user and computer. Specify advantages and disadvantages of each interaction style. **[10]**

b) What is WIMP interface? Discuss its advantages and disadvantages. **[8]**

OR

Q4) a) What are different paradigms of interactions? Explain any one of the following in details **[10]**

- i) Pervasive computing
- ii) Invisible computing
- iii) Wearable computing

b) Discuss the practical issues in interaction design process. **[8]**

P.T.O.

- Q5) a)** What is Usability Engineering? Explain principles that support usability. **[8]**
b) Why is context important in selecting and applying guidelines and principles for interface design? Illustrate your answer with examples. **[8]**

OR

- Q6) a)** With respect to Human Diversity how to accommodate users with disabilities and elderly users while designing user interfaces. **[8]**
b) Evaluate Microsoft Power Point interface on the basis of the “Eight golden rules of interface design”. **[8]**

SECTION - II

- Q7) a)** What is web-usability? What are benefits of web usability? Discuss the guiding principles of web-usability. **[10]**
b) Explain any two evaluation paradigms for UI design. **[8]**

OR

- Q8) a)** What is DECIDE? List and explain unique phases of DECIDE framework. **[10]**
b) Compare: Formative Evaluation versus Summative Evaluation. **[8]**

- Q9) a)** Explain any one cognitive model of goal or task hierarchy. **[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 the purpose or aims of Task Analysis? Explain knowledge based task analysis **[8]**
b) Explain GOMS model by taking appropriate task. Also discuss the issue of closure in terms of your GOMS description. **[8]**

Q11) Write short notes on any THREE of the following: [16]

- a) Information and data visualization
- b) Ubiquitous computing
- c) Groupware systems
- d) Augmented Reality

