

**B. Tech Third Year : 6<sup>th</sup> Semester**  
**HUMAN COMPUTER INTERFACE, MAY/JUNE, 2011**  
**(FOR 6 CS/IT 6.3 BRANCH OF ENGINEERING)**

**Times : 3 Hours**

**Min. Passing Marks : 24**

**Total Marks : 80**

*Instructions to Candidates : Attempt overall five questions selecting one question from each unit. All questions carry equal marks, (Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitable be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)*

⟨ **Unit-I** ⟩

1. Explain various input-output channels. Give details of working of Joystick and touch screen, CRT and LCD. [16]

**OR**

Explain various models of interaction and the factors of ergonomics. [16]

⟨ **Unit-II** ⟩

2. Explain: [16]
- (a) Process of design
  - (b) User focus
  - (c) Screen Design
  - (d) Useability Engineering

**OR**

What are the principles to support learnability? Give various guidelines, rules and heuristics for HCI. [16]

⟨ **Unit-III** ⟩

3. Explain [16]
- (i) Evaluation through expert analysis
  - (ii) Evaluation through user participation

- (iii) Experimental evaluation

**OR**

Explain the requirements of user support system and approaches for the same. [16]

⟨ **Unit-IV** ⟩

4. Explain goal and task hierarchies. How do linguistic Model HCI? [16]

**OR**

Explain key stroke level model, Three state model and problem State Model. [16]

⟨ **Unit-V** ⟩

5. (a) List all the basics of face to face communications and task based communications. [8]
- (b) Distinguish between task analysis and other techniques. [8]

**OR**

- (a) Explain knowledge based and ER based analysis, differentiate between both. [8]
- (b) What are the sources of information and data collection? [8]