

**PAPER XXIX – HUMAN COMPUTER INTERACTION**

**Unit I :**

**The Interaction:** Introduction - Models of interaction – Frameworks and HCI Ergonomics – Interaction styles - Elements of the WIMP interface –Interactivity – The context of the interactions

**Paradigms:** Introduction - Paradigms for interaction.

**Unit II :**

**Interaction, Design basics:** Introduction – What is design? – User focus – Scenarios – Navigation design- Screen design and layout – Interaction and prototyping

**HCI in the software process:** Introduction- The software lifecycle – Usability engineering – Interactive design and prototyping – Design rationale.

**Unit III:**

**Design rules:** Introduction –Principles to support usability – Standards – Guidelines – Golden rules and heuristics – HCI patterns

**Implementation Support:** Introduction – Elements of windowing systems – Programming the application Using toolkits - User interface management systems.

**Unit IV:**

**Evaluation techniques:** What is evaluation- Goals of evaluation- Evaluation through expert analysis- Evaluation through user participation – Choosing an evaluation method.

**Universal Design:** Introduction- Universal design principles – Multi-modal interaction- Designing for diversity- Summary. Introduction – Requirements of user support- Approaches to user support Adaptive help systems – Designing user support systems.

**Unit V:**

**User support:** Introduction- Requirements of user support – Approaches to; user support – Adaptive help systems designing user support systems.

**Text Book:**

1. Human-Computer Interaction, Third Edition, “Alan Dix, Janet Finlay, Gregory D. Abowd and Russell Beale”, Pearson Education, 2004.

**Reference Book:**

1. Human-Computer Interaction in the New Millennium, “John C.Carroll”, Pearson Education” 2002.