

SIXTH SEMESTER B.TECH. (ENGINEERING) DEG EXAMINATION, MAY 2013

IT 09 605—HUMAN COMPUTER INTERACTION

(2009 Admission onwards)

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

Short Answer Questions. (One/two sentences)

- 1. List some applications for which natural language interfaces are most appropriate.
- 2. State the principles that support usability.
- 3. Give the importance of eye contact in face to face communication.
- 4. Write the properties of clocks and calendars.
- 5. What is meant by the terms control, feedback and feedthrough in the classification by function framework?

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any **four** questions.

Analytical / Problem solving questions.

- 6. Describe Fitt's law. How does it change for different physical selection devices?
- 7. List three types of shared applications. What are the main issues that need to be addressed in the design of these applications?
- 8. Explain the standards used for interactive system design process.
- 9. What is GOMS? Explain its functions in detail.
- 10. Explain the Shneiderman's eigth golden rules of interface design.
- 11. List out the socio-organizational issues.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions.

Descriptive/Analytical/Problem solving questions.

12. (a) Explain about the Human memory. Also compare it with the typical computer system.

Or

(b) What are device display devices? Explain each of them with an example.

Turn over

13. (a) How do prototypes facilitate iterative design? Explain.

Or

- (b) What knowledge is needed to build an adaptive help system? Which do you think is most difficult to provide and why?
- 14. (a) Explain about the physical and device models.

Or

- (b) Explain the following related to task analysis.
 - (a) Concur Task Trees.
 - (b) GTA ontology.
 - (c) Trigger analysis.
- 15. (a) With neat flow diagrams explain co-operative work and different forms of awareness.

Or

(b) Describe about the data visualization techniques used for virtual reality.

 $(4 \times 10 = 40 \text{ marks})$