

Printed Pages—3

TOE20

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 0920

Roll No.

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**B. Tech.**

(SEM. VII) ODD SEMESTER THEORY

EXAMINATION 2010-11

**HUMAN COMPUTER INTERACTION**

Time : 3 Hours

Total Marks : 100

Note :— (1) Attempt all questions.

(2) Each question carries equal marks.

1. Attempt any **four** parts of the following :— (5×4=20)
  - (a) “Documentation is dependent on users.” Comment on the statement.
  - (b) Name five pointing devices. Also explain the principle.
  - (c) What are the advantages and disadvantages of Menus used in GUI application ?
  - (d) “Documentation is often overlooked from the design stress perspective.” Discuss the validity of the statement.
  - (e) Explain the concept of Hypermedia for user interface. Also discuss their importance and necessary design considerations for user interfaces.
  - (f) Enlist the evaluation methods or user interface required to be conducted for efficient design.
2. Attempt any **two** parts of the following :— (10×2=20)
  - (a) Explain the role of user documentation in HCI. What are the major parameters on which documentation should be done.

- (b) How the two important components of Presentation Design are evolved from the sequential machine theory? Discuss the analogy in detail.
- (c) Explain the role of effectiveness, learnability and flexibility in Usability Engineering.

3. Attempt any two parts of the following :— (10×2=20)

- (a) Discuss how Ergonomics can be defined in terms of a Mathematical rule as per the norms of FITT's Law.
- (b) Explain the three distinct connected areas for retention of information in memory. Why engineers should remember the characteristics of software system during development process of software system ?
- (c) "The environment and setup of basic infrastructure has an impact on productivity in a software development house." Suggest your opinion on this statement. What parameters account for the organizational imbalance ?

4. Attempt any two parts of the following :— (10×2=20)

- (a) User Interface Design is notably influenced by evaluation. How does it affect the usability of the user Interface ? What are the types of evaluation ? Explain them in detail.
- (b) Discuss three approaches to organize content of documentation. "Designing an interface is an iterative process". Give your reasonable comments on this statement.
- (c) Explain the major features of interactive design. Also explain the tool "rapid prototyping" in interactive design.

Attempt any **two** parts the following :— **(10×2=20)**

- (a) List the major categories that affect learnability and explain them in detail.
- (b) Testing plays a vital role in quality of any software product, the same way usability testing is mandatory in User Interface Design—comment on this statement. Supply the steps that should be taken to perform usability testing with explanation.
- (c) Only positive thinking is not the only means to achieve successful usability testing. What are the other factors that must be considered to achieve usability testing of better quality.