

Printed Pages : 4



CA412

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

PAPER ID : 214412

Roll No.

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MCA

(SEM. IV) THEORY EXAMINATION, 2014-15
**HUMAN COMPUTER INTERACTION AND USER
INTERFACE DESIGN**

Time : 3 Hours]

[Total Marks : 100

- Note:**
- (1) Attempt all question.
 - (2) All question carry equal marks.

1 Attempt **any four** questions. **5×4=20**

- (a) Discuss the design guidelines for design of human computer interface.
- (b) Explain the role of pointing device in interaction. Also explain the principle of anyone of pointing device.
- (c) Discuss the design guidelines for design of human computer interface.
- (d) "Documentation is dependent on .users."
Comment on the statements.

- (e) List the major categories that affect learnability and explain them in detail.
- (f) Explain a brief history of Screen design.

2 Attempt **any four** questions. **5×4=20**

- (a) Explain the role of human factors in user centered design.
- (b) Discuss the design guidelines for design of human computer interface.
- (c) For what type of user is a GUI particularly effective?
- (d) What are the roles of icons, graphics, and color in providing feedback?
- (e) List three physical considerations that HCI design addresses.
- (f) Write short notes on following :
 - (i) Cognitive issues in interaction
 - (ii) Human Interaction speeds.

3 Attempt **any two** questions : **10×2=20**

- (a) Define graphical user interfaces. What is the key difficulty they present for programmers?

- (b) Explain how fit among the HCI elements of the human, the computer, and the tasks to be performed leads to performance and well-being.
- (c) Write short notes on following :
 - (i) Technological consideration in interface design
 - (ii) Design process.

4 Attempt **any two** question. **10×2=20**

- (a) Explain the meaning of hypertext and how it is different from normal text. Discuss various elements of hypertext. Describe at least 10 tags used in HTML.
- (b) List eight ways for achieving the goal of minimal operator action when designing a user interface.
- (c)
 - (i) What are the advantages and disadvantages of Menus used in GUI application?
 - (ii) Explain the concept of Hypermedia for user interface. Also discuss their importance and necessary design considerations for user interfaces.

5 Attempt **any two** question. **10×2=20**

- (a) What is the focus of HCI research for the three emerging technologies studied and what are the limitations and the opportunities for future research?
 - (b) How do methods and tools support the process of designing human-computer interaction for the three emerging technologies studied?
 - (c) Write short notes on following :
 - (i) Speech recognition digitization and generation
 - (ii) Image and video.
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