Code No: **RT42053A**

R13

Set No. 1

IV B.Tech II Semester Regular Examinations, April/May - 2017
HUMAN COMPUTER INTERACTION
(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Describe various usability goals and measures.   [4]
    b) Write a short note on the fast movement through menus   [4]
    c) Distinguish between keyboards and keypads   [3]
    d) Discuss on the issues related to webpage design   [4]
    e) Describe the taxonomy of user manuals and tutorials   [4]
    f) Define the term multidimensional data   [3]

PART–B *(3x16 = 48 Marks)*

2. a) Describe five main issues that may affect the design, implementation   or
        marketing   [8]
    b) Explain Shneiderman's three pillars of design   [8]

3. a) Discuss the classification of Menus   [8]
    b) Provide three examples of an application where menu selection and form filling
        are more appropriate than a direct-manipulation strategy   [8]

4. a) Elaborate on various pointing devices   [6]
    b) What are the various abbreviation strategies and also discuss on abbreviation
        guidelines   [10]

5. a) What are the guidelines for alphanumeric displays, spreadsheets and Graphs [8]
    b) List few common mistakes of web-based display of information   [8]

6. a) Discuss the advantages and disadvantages of reading on paper and reading on
        computer display   [8]
    b) "Online communities are useful for User Assistance" – Justify this statement
        describing various weaknesses and strengths   [8]

7. a) What is information Visualization? Explain how it caters to the perceptual
       abilities of humans   [8]
   b) Explain advanced filtering and search techniques   [8]

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Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART−A *(22 Marks)*

1. a) What should we do to achieve Usability?   [3]
    b) Write the guidelines for Menu-selection.   [4]
    c) Compare and contrast the characteristics of various pointing devices.   [4]
    d) Illustrate the variability in system response time.   [4]
    e) Mention the potential disadvantages of reading from displays.   [3]
    f) What is the reference model for visualizations?   [4]

PART−B *(3x16 = 48 Marks)*

2. a) Explain in detail about the usability measures.   [8]
    b) Discuss the organizational design to support usability.   [8]

3. a) Explain the various strategies for combining multiple Menus.   [8]
    b) What are the application domains that exist for devices with small displays?
        Explain with examples.   [8]

4. a) List and explain the strategies for command organization.   [8]
    b) Describe about discrete word recognition and continuous speech recognition in
        detail.   [8]

5. a) Explain about users' tasks and needs which are important in user interface
        design.   [8]
    b) Discuss and elaborate the issues to be considered in choosing colors for web
        pages.   [8]

6. a) What is Transition diagram? Explain its advantages and disadvantages with
        examples.   [8]
    b) Explain in detail about context-sensitive help.   [8]

7. a) Discuss with examples about the database searches.   [8]
    b) What are the challenges that information visualization researchers need to face to
        create successful tools? Explain.   [8]

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Set No. 3

IV B.Tech II Semester Regular Examinations, April/May - 2017
HUMAN COMPUTER INTERACTION
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Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Mention the usability goals for our profession.   [3]
    b) What are menu-selection and dialog box trees?   [4]
    c) Compare and contrast between specificity and generality.   [4]
    d) Write the primary factors that influence users' expectations and attitudes
        regarding system response time.   [4]
    e) Give a brief note on animated demonstrations.   [3]
    f) Discuss about the multilingual searches.   [4]

PART–B *(3x16 = 48 Marks)*

2. a) Why do we really want usability? Explain with suitable examples.   [8]
    b) Discuss the Social impact statement for early design review.   [8]

3. a) Explain the various guidelines for designing dialog boxes.   [8]
    b) Discuss about the menus for long lists with examples.   [8]

4. a) Describe the Speech digitization and generation.   [8]
    b) Explain the system functionality to support users' tasks.   [8]

5. a) Discuss the role of User Productivity in determining system response time. [8]
    b) Describe choosing colors for statistical graphical screens.   [8]

6. a) What are the advantages and disadvantages of online manuals?   [8]
    b) Discuss the use of OAI model to design manuals with suitable diagrams. [8]

7. a) Describe the five-phase framework to clarify user interfaces for textual search. [8]
    b) Discuss the data type by task taxonomy to identify information visualization data
        types.   [8]

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Set No. 4

IV B.Tech II Semester Regular Examinations, April/May - 2017
HUMAN COMPUTER INTERACTION
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Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Compare and contrast between three and Four pillars of design.   [3]
    b) What is the importance of user's tasks and needs in design of a system?   [4]
    c) List the strategies for command organization.   [4]
    d) Write short notes on user-centered phrasing.   [4]
    e) Discuss the various forms of traditional paper user manuals.   [3]
    f) Mention the five phases that offers features for designers for textual search.   [4]

PART–B *(3x16 = 48 Marks)*

2. a) Discuss the usability goals for requirement analysis.   [8]
    b) Explain the six stages of LUCID development methodology.   [8]

3. a) Discuss the techniques available to accelerate the fast movement through menus.   [8]
    b) Explain how the content organization issues in menus can be reviewed through   [8]
        design guidelines.

4. a) Discuss the guidelines for using abbreviations in Command Languages.   [8]
    b) Explain briefly about the features of following key board layouts:
        (i) QWERTY layout
        (ii) DVORAK layout   [8]

5. a) In presentation styles what is the role of error messages? Explain about
        readability guidelines for messages.   [8]
    b) What is coordination? Discuss the important coordinations supported by
        interface developers for window design.   [8]

6. a) Discuss the taxonomy of user manuals, online help and tutorials.   [8]
    b) Explain the appropriate milestones for the production of a manual.   [8]

7. a) Explain the role of text messages for designing a successful user interface.   [8]
    b) Discuss the basic tasks that need to be supported for information visualization.   [8]

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