

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2017

HUMAN COMPUTER INTERACTION

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Explain the benefits of good design.
 - (b) What are the goals of user interface?
 - (c) Explain advantages of graphical system.
 - (d) What is the importance of information processing in designing screen interface?
 - (e) List different types of windows.
 - (f) What are design standards of a user interface?
 - (g) What are operable controls?
 - (h) Explain selecting proper controls.
 - (i) Write short notes on choosing colors for textual graphics screen.
 - (j) Explain the scope of testing.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 (a) Explain history of screen design.
(b) Discuss the principles of user interface.

OR

- 3 (a) What are the characteristics that direct manipulation should possess?
(b) Explain differences between GUI and Web Interface design.

UNIT – II

- 4 (a) List and explain the 10 common visibility problems in graphical interface.
(b) Discuss human interaction speeds in designing of interface.

OR

- 5 (a) What are human considerations in designing screen design? Explain.
(b) Explain the importance of statistical graphics in designing interface.

UNIT – III

- 6 (a) Discuss the characteristics of an window.
(b) Explain organization of window system function in detail.

OR

- 7 (a) Explain the different components of an window.
(b) Explain windows presentation styles.

UNIT – IV

- 8 (a) Discuss device based control characteristics.
(b) Explain Text / Read - only controls.

OR

- 9 (a) Explain how do we select the proper devices based on controls.
(b) Explain the combination Entry / Selection controls.

UNIT – V

- 10 (a) What is color? Explain the relationship between color and human vision.
(b) Explain the importance of Icon in designing user interface.

OR

- 11 (a) What is testing? Explain the purpose and importance of usability testing.
(b) Discuss about the developing and conducting the test in detail.

Code No: **R42052**

R10

Set No. 1

IV B.Tech II Semester Regular Examinations, April/May - 2014

HUMAN COMPUTER INTERACTION

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 a) Define HCI. What is the importance of good design? [8]
b) Write a brief history of screen design. [7]
- 2 a) Discuss about the characteristics of a Web interface. [8]
b) What are the characteristics of the GUI? Explain. [7]
- 3 a) Explain about business definition and requirement analysis. [8]
b) What are the human considerations in design? Explain. [7]
- 4 a) Discuss about display/read-only screens. [8]
b) What are screen elements? Explain. [7]
- 5 a) Discuss about the phrasing of the menu. [5]
b) What are Window operations? Explain. [5]
c) Explain about the selection of proper device-based controls. [5]
- 6 a) Briefly discuss about creation of meaningful graphics, icons and images. [8]
b) What is a color? What are color uses? What are the possible problems with colors? [7]
- 7 Discuss in detail about Backus-Naur Form (BNF) with examples. [15]
- 8 Explain the following:
a) Direct-control pointing devices [5]
b) Discrete word recognition [5]
c) Function keys [5]

Code No: **R42052**

R10

Set No. 2

IV B.Tech II Semester Regular Examinations, April/May - 2014

HUMAN COMPUTER INTERACTION

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours

Max. Marks: 75

Answer any Five Questions

All Questions carry equal marks

- 1 a) Write the chronological history of the Internet. [8]
b) What are the benefits of good design? Explain. [7]
- 2 a) Write about the merits of graphical systems. [8]
b) Briefly describe the differences between printed page and Web page design. [7]
- 3 a) Discuss about interaction of people with computers. [8]
b) Explain in detail about determining basic business functions. [7]
- 4 a) What are various types of statistical graphs? Explain. [8]
b) Describe reading, browsing and searching on the Web. [7]
- 5 a) What are the characteristics of device-based controls? [5]
b) What are Window characteristics? [5]
c) How to format on Menus? Explain. [5]
- 6 a) Discuss about components of Multimedia. [8]
b) Explain in detail about choosing colors. [7]
- 7 Explain in detail about interface-building tools. [15]
- 8 Explain the following:
a) Indirect pointing devices [5]
b) Speech recognition [5]
c) Display technology [5]

Code No: **R42052**

R10

Set No. 3

IV B.Tech II Semester Regular Examinations, April/May - 2014

HUMAN COMPUTER INTERACTION

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 a) Write the chronological history of GUI. [8]
b) Discuss about the blossoming of the WWW. [7]
- 2 a) What are the disadvantages of graphical systems? Explain. [8]
b) Describe about the popularity of web-user interface. [7]
- 3 a) What are design standards? Explain. [5]
b) Describe the User's knowledge and experience. [5]
c) Write any five human characteristics in design and explain. [5]
- 4 a) Explain about screen navigation and flow. [8]
b) What are the technological considerations of interface design? Explain. [7]
- 5 a) What are structures of menus? Explain. [5]
b) Describe various types of Windows. [5]
c) How to select the proper device-based controls? [5]
- 6 a) What is an Icon? Explain different icons in detail. [5]
b) Explain about the text for Web pages. [5]
c) Describe choosing colors for statistical graphical screens. [5]
- 7 Briefly discuss about Microsoft Visual Studio. [15]
- 8 Explain the following:
a) Printers [5]
b) Voice information systems [5]
c) Fitts' Law [5]

Code No: **R42052**

R10

Set No. 4

IV B.Tech II Semester Regular Examinations, April/May - 2014

HUMAN COMPUTER INTERACTION

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 a) Give a brief introduction of the GUI. [8]
b) Discuss about the importance of good design. [7]
- 2 a) What is the concept of direct manipulation? Explain. [8]
b) Distinguish between GUI and Web page design. [7]
- 3 a) What are the User's tasks and needs? Explain. [5]
b) How people interact with computers? Explain. [5]
c) Describe developing conceptual models. [5]
- 4 Discuss in detail about visually pleasing composition. [15]
- 5 a) What are the Window operations? Explain. [5]
b) Explain about the components of a Window. [10]
- 6 a) How to choose colors? Explain. [7]
b) Explain the following with respect to Icons:
(i) Types (ii) Characteristics (iii) Usability (iv) Choosing [8]
- 7 What are six main criteria for finding the right tool? Explain in detail. [15]
- 8 Explain the following:
a) Comparison of pointing devices [5]
b) Speech and auditory interfaces [5]
c) Mobile device displays [5]

Code No: RR421201

Set No. 1

IV B.Tech II Semester Regular Examinations, Apr/May 2007
HUMAN COMPUTER INTERACTION
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the guidelines for data display and data entry? (16M)
2. Explain the role of usability testing in user interface design? (16M)
3. Describe the factors in choosing any user interface building tool? (16M)
4. Explain different types of menus? (16M)
5. Explain the conditions for optimum problem solving. (16M)
6. In presentation styles what is the role of error messages? (16M)
7. What is the coordination by tightly coupled windows. (16M)
8. Explain about multimedia document searches. (16M)

Code No: RR421201

Set No. 2

IV B.Tech II Semester Regular Examinations, Apr/May 2007
HUMAN COMPUTER INTERACTION
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the guidelines for data display and data entry? (16M)
2. How surveys help in better designing? (16M)
3. Describe the factors in choosing any user interface building tool? (16M)
4. (a) Explain coded fields in form fill-in? (8M)
(b) Write menu selection guidelines? (8M)
5. Explain the conditions for optimum problem solving (16M)
6. What are the results of empirical tests that have been conducted on alternative display design? (16M)
7. Explain steps for multiple window design. (16M)
8. What is the importance of searching? Explain different task actions. (16M)

Code No: RR421201

Set No. 3

IV B.Tech II Semester Regular Examinations, Apr/May 2007
HUMAN COMPUTER INTERACTION
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the need to balance automation and human factors? (16M)
2. How surveys help in better designing? (16M)
3. Give OAI model explanation of direct manipulation? (16M)
4. What is task related organization? Give its importance? (16M)
5. Give simple model of system response time and user think time. Explain it. (16M)
6. What is nonanthropomorphic design? (16M)
7. Explain steps for multiple window design. (16M)
8. What is the importance of searching? Explain different task actions. (16M)

Code No: RR421201

Set No. 4

IV B.Tech II Semester Regular Examinations, Apr/May 2007
HUMAN COMPUTER INTERACTION
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Take any real world software as example and explain the following terms on that software. Time to learn, Speed of performance, Rate of errors by users, Retention over time and subjective satisfaction? (16M)
2. Explain how expert reviews help in designing and developing? (16M)
3. What is the use of interface building tools? Also explain features of those tools? (16M)
4. Explain different types of menus? (16M)
5. (a) What is Fitt's law? Where it used? (8M)
(b) What are novel pointing devices? (8M)
6. In presentation styles what is the role of error messages? (16M)
7. Explain steps for multiple window design. (16M)
8. Describe web users tasks? (16M)

Code No: R05420506

Set No. 1

IV B.Tech II Semester Regular Examinations, Apr/May 2009
HUMAN COMPUTER INTERFACE
(Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the importance of good Interface design. [16]
2. (a) List and explain about different ways to minimize the complexity in user interface design.
(b) What is meant by transparency in user interface design. [8+8]
3. Give a detailed note about the following important human characteristics in user interface design.
(a) Learning
(b) Skill
(c) Individual differences. [16]
4. What is the role of following parameters in providing focus and emphasis in a web-page.
(a) Brightness
(b) Reverse polarity
(c) fonts
(d) Under lining
(e) Bunk
(f) Colors. [16]
5. Explain the following screen based controls, and also explain their respective advantages and disadvantages.
(a) Drop-down/pop-up list boxes
(b) Drop-down/pop-up combo boxes. [8+8]
6. (a) What are the influences on icon usability.
(b) Give a brief note about icon animation and audition. [8+8]
7. Describe the following specification methods:
(a) Transition diagrams
(b) State charts. [8+8]

Code No: R05420506

Set No. 1

8. Write brief notes on the following:

(a) Keys

(b) Cursor movement keys.

[8+8]

Code No: R05420506

Set No. 2

IV B.Tech II Semester Regular Examinations, Apr/May 2009

HUMAN COMPUTER INTERFACE

(Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. Give a brief note about the development of human-computer interface in chronological order. [16]
2. Explain in detail about the following principles of using interface design
 - (a) Aesthetically pleasing
 - (b) clarity
 - (c) compatibility. [16]
3. Explain in detail about the following techniques determining requirements. Categorize them as direct or indirect method.
 - (a) Observational field Study
 - (b) Electronic focus group
 - (c) User group
 - (d) Trade show. [4×4]
4. Give a brief note about the following headings types used in screen design.
 - (a) Control section heading
 - (b) Control sub-section/ row heading
 - (c) field group heading
 - (d) web page heading. [4×4]
5.
 - (a) Discuss how menu choices can be selected.
 - (b) What are intent indicators, keyboard equivalents and keyboard accelerator's? [16]
6. What is an icon? What are the various kinds of icons? Explain them clearly. [16]
7. Give a detailed note about the following specification methods
 - (a) Menu-selection and dialog-box trees
 - (b) State charts. [8+8]
8. Give brief note about
 - (a) Projectors

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Set No. 2

(b) Heads-up display

(c) Liquid-crystal display (LCD).

[16]

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IV B.Tech II Semester Regular Examinations, Apr/May 2009
HUMAN COMPUTER INTERFACE
(Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain about the benefits of good Interface design. [16]
2. (a) Define graphical user interface
(b) What is meant by direct manipulation in Graphical system. What are the characteristics? [8+8]
3. List and explain about the web- Usability characteristics which are wasteful of people's time and quit irritating. [16]
4. (a) How do we choose a best graph type for a given specified task.
(b) What are the characteristics of Pie chart [8+8]
5. Describe and state the use of the following screen based controls
(a) Buttons
(b) Text entry/read-only controls. [8+8]
6. (a) Give a brief note about the color considerations in the design of foreground and background.
(b) Discuss the size related parameters on choosing icons. [8+8]
7. (a) Give a brief note about user-action notation (UAN).
(b) Compare Java script and HTML. [8+8]
8. List various kinds of keyboard layouts, and explain them. [16]

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Set No. 4

IV B.Tech II Semester Regular Examinations, Apr/May 2009
HUMAN COMPUTER INTERFACE
(Computer Science & Engineering)

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. Give a detailed note about user interface design. [16]
2. (a) Define the terms
 - i. User interface
 - ii. Objects and
 - iii. Action.
 (b) Distinguish between direct and indirect manipulations. [10+6]
3. Give a detailed note about obstacles and pitfalls in the development path of interface Design process. [16]
4. (a) What are the interface design goals. Explain about each briefly.
 (b) What are the issues to be considered in ordering of screen data and content. [8+8]
5. Discuss the following screen-based controls
 - (a) Drop-down/pop-up list boxes
 - (b) Combination entry/selection control. [16]
6. (a) Discuss the guidelines for designing icons.
 (b) What are the common message types? Explain them briefly. [8+8]
7. Give a brief note about different widget supports and software architectures that are used in user-interface building tools. [16]
8. Write brief notes on the following:
 - (a) Touch-screen
 - (b) Helmet-mounted displays
 - (c) Plasma panel. [5+5+6]

Code No: K0525

R07

Set No. 1

IV B.Tech. II Semester Regular Examinations, April, 2011
HUMAN COMPUTER INTERACTION
(Computer Science & Engineering)

Time: 3 Hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. a) Define the user interface in detail. State the importance of good design.
b) What are the benefits of good design? Explain in detail. [8+8]
2. a) Give characteristics of intranet Vs internet in detail.
b) Discuss in detail about the advantages and disadvantages of graphical systems. [8+8]
3. Explain in detail about the following techniques determining requirements.
Categorize them as direct or indirect method. [4x4=16]
 - a) Traditional focus group
 - b) Paper survey or Questionnaire
 - c) Competition analysis
 - d) System testing.
4. a) How to organize screen elements? Explain in detail.
b) Discuss how the screen navigation and flow are required for effective user interface. [8+8]
5. a) Discuss in detail about text entry and read only controls in detail.
b) Describe in detail about organizing windows. [8+8]
6. a) What is a color? Write about the problems with colors.
b) Discuss about Writing Sentences and Messages and discuss different kinds of messages. [8+8]

Code No: K0525

R07

Set No. 1

7. Give a brief note about the following and illustrate the following specification methods with suitable examples. [4x4=16]
- a) TCL scripting language
 - b) Galaxy
 - c) Java script
 - d) Transition diagrams
8. a) Explain briefly about the features of different key board layouts.
b) Explain in detail the construction and functioning of different types of pointing devices. [8+8]

Code No: K0525

R07

Set No. 2

IV B.Tech. II Semester Regular Examinations, April, 2011
HUMAN COMPUTER INTERACTION
(Computer Science & Engineering)

Time: 3 Hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. a) Explain the need to balance automation and human factors. Explain about the computer's ability to interface with humans.
b) Explain the significant events that led to blossoming of World Wide Web. [8+8]
2. a) Explain the design goals in creating a user interface. Explain the role of usability testing in user interface design.
b) Explain in detail about the following principles of using interface design. [8+8]
 - i) clarity
 - ii) compatibility
3. a) Discuss about the importance of user's tasks and needs in the design.
b) Discuss about the indirect method of requirement determination in detail. [8+8]
4. a) Explain about the properties that provide a visually or aesthetically pleasing composition possessing.
b) Discuss how a poor screen design can distract the user and what a user expects in good screen design. [8+8]
5. Identify the characteristics and capabilities of the following screen-based controls. [4x4=16]
 - a) Text entry / read-only controls.
 - b) Combination entry / selection control.
 - c) Custom controls.
 - d) Combo boxes .

Code No: K0525

R07

Set No. 2

6. a) Briefly explain Microsoft recommendations for message box.
b) In presentation styles what is the role of error messages? [8+8]
7. a) Explain the role of user interface architects in building software tools?
b) Also discuss about the specification methods of software tools. [8+8]
8. a) Explain important types of display devices and also the features of VDU.
b) Describe briefly about speech recognition and digitization and generation. [8+8]

Code No: K0525

R07

Set No. 3

IV B.Tech. II Semester Regular Examinations, April, 2011
HUMAN COMPUTER INTERACTION
(Computer Science & Engineering)

Time: 3 Hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. a) Explain about the impact of inefficient Screen Design on Processing Time.
b) Is good design of user interface important? What comprises a good design?
Explain benefits of good design. [8+8]
2. a) Compare the print page design and web page design
b) How surveys help in better designing? Discuss in detail about the characteristics and principles of user interface. [8+8]
3. a) Explain in detail about direct method for understanding the business junctions.
b) Describe about Possible Problems in Requirements Collection. [8+8]
4. a) State and explain various qualities which provides visually pleasing composition and give suitable examples for each quality.
b) Explain briefly about guidelines in design of webpage controls. [8+8]
5. a) Explain about the way in which links aggravate the user. Discuss in detail Web Site Navigation Problems.
b) Describe in detail about the selection of device based and screen based controls in detail. [8+8]
6. a) What is message? Classify the message. Give a detailed note about the messages.
b) Discuss and elaborate the issues to be considered in choosing colors for web pages. [8+8]

Code No: K0525

Set No. 3

7. a) Describe the factors in choosing any user interface building tools.
b) Explain about evaluation and critiquing tools in detail. [8+8]
8. a) Explain speech recognition, Digitization and generation in detail.
b) Write brief notes on the following: [8+8]
i) Functional Keys
ii) Cursor movement keys.

JNTUWORLD

Code No: K0525

R07

Set No. 4

IV B.Tech. II Semester Regular Examinations, April, 2011
HUMAN COMPUTER INTERACTION
(Computer Science & Engineering)

Time: 3 Hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. a) Discuss the importance of good design, and also benefits of good design.
b) Write the chronological history of graphical user interfaces. [8+8]
2. a) Compare and contrast the graphical user interface and the web user interface.
b) Discuss in detail about the characteristics and principles of user interface. [8+8]
3. a) Discuss in detail about design commandments remain foremost in the development process.
b) Explain about methods for gaining understanding of users. [8+8]
4. a) Can all screen or Web page elements be identified by cues other than by reading the words that make them up? Explain.
b) Explain about Organization and Structure Guidelines in designing screens. [8+8]
5. a) Discuss in detail about advantages and disadvantages of multiple document interface.
b) Describe in detail about selecting proper device based control. [8+8]
6. a) What points are to be noted in creating images as icons?
b) What is image map? What is its use? What are its advantages and disadvantages?
What is meant by combining mediums? What are its characteristics? [8+8]

Code No: K0525

R07

Set No. 4

7. Describe the following specification methods and illustrate the following specification methods with suitable examples. [4x4=16]
- a) Grammars
 - b) Transition diagrams
 - c) State charts
 - d) TCL scripting language
8. a) What is Fitt's Law and also explain its significance.
b) Explain important types of display devices and also the features of VDU. [8+8]

IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011
HUMAN COMPUTER INTERACTION
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Give a brief history of the human computer interface.
(b) Discuss the importance of good design and also benefits of good design.
2. What is meant by graphical system ? Discuss in detail various characteristics of graphical systems.
3. (a) Discuss the importance of human characteristics which have influence on Human consideration.
(b) What is meant by basic business function ? Explain with example.
4. Explain the qualities of visually pleasing composition in good screen design.
5. Explain about the following menus.
 - (a) Menu bar
 - (b) Pull down menu
 - (c) Cascading menu
 - (d) Pop-up menu
6. (a) What kind of screen messages are required to transfer the message to the viewers explain with example.
(b) What are the factors to be considered in choosing colors for display?
7. Discuss the various specification methods in detail.
8. List various indirect control pointing devices. Explain the functioning of each.

Code :R7420506

R7

IV B.Tech II Semester (R07) Advanced Supplementary Examinations, May 2011
HUMAN COMPUTER INTERACTION
(Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Define the user Interface and Discuss the importance of good design.
(b) Discuss basic principles of a screen design.
2. What is meant by a graphical user interface? Give the advantages and disadvantages of a graphical system.
3. Briefly explain about the Human consideration in design.
4. (a) Discuss about the ordering of screen data and content.
(b) What are the qualities required for visually pleasing composition? Explain.
5. (a) List the Types of windows available and briefly explain each one.
(b) Explain the characteristics and capabilities of various device - based controls.
6. (a) What kind of screen messages is required to transfer the message to the viewer's? Explain with suitable example.
(b) What are the factors influences an icon's usability?
7. Clearly explain about Interface - Building Tools.
8. (a) List various types of interaction tasks for pointing devices.
(b) Explain about Display technology.
