1. a) What do you mean by the term “Human Computer Interaction”?
   c) Discuss the need of Human Computer Interaction and also give the brief detail regarding conceptualizing interaction.
   d) Discuss the following:
      i) Data gathering
      ii) Interfaces and interactions
      OR
      Discuss the mechanism that governs the Human Computer Interaction with emphasizing on end user’s aspect during the interaction.

2014

1. a) What kinds of interface features are to be considered in choosing among user interface building tools? Explain briefly.
   b) Define HCI? Why HCI is important? What fields does HCI covers?

2. a) Differentiate between Good Interfaces and Bad Interfaces.
   b) Discuss the usability of Interactive Systems.
1. a) What are the goals of good user interface design.  
   b) Give a brief note about the features of user-interface building tools.

2. a) What is data gathering? How is it performed?  
   b) Discuss how the user’s physical characteristics can also greatly affect their performance with a system.

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1) a) What is Human Computer Interaction. How it related to the Human and Machine?  

OR

2) a) Define the terms of Interfaces, Interactions and Data gathering with suitable example.  
   b) Compare Iterative Design and user centered Design with respect to capacity and access time.
1. (a) What do you understand from Usability and User Experience Goals? Name examples.
   (b) What are the goals of user interface designer?

Or

2. (a) Comment to justify the following statement: “Most users are neither beginners nor experts; instead they are intermediates.”
   (b) How the Human-Computer interaction and user interface design are related? Explain about each.
Unit 2

2016

2. a) What do you mean by Natural Computing?
    b) Define the term “Heuristic Evaluation”.
    c) Discuss the key components of User Centered System Design (UCSD).
    d) Give the detailed discussion on strength and weaknesses of interactive design and also give the suggestions for further improvement in the current practice.

OR

Discuss the design aspect and criteria’s for the effective design of Human Computer Interaction system.

2014

3. a) Explain the Task and requirement analysis in UCSD.
    b) Discuss the benefits and importance of user centered system design.

4. a) Explain Heuristic evaluation briefly.
    b) Compare traditional system centered design and user centered design.
3. a) Describe the strengths and weakness of interactive design.

b) Discuss various types of user model and explain how they are evaluated.

3) a) Describe user centered system design. Compare Traditional design approach and user centered design approach. (10)

b) What is Natural computing. How the server help in better designing. (10)

OR

4) a) What are the strength and weakness of Interaction Design. (10)

b) Describe the type of user model with the help of heat diagram. (10)
3. (a) How do surveys help in better designing?
(b) Explain why the following statement is false: Unlike the user model, the design model is complete and accurate.

Or

4. (a) Give a few examples of interactive products which are not usable.
(b) What is Heuristic Evaluation? Why is it used? Outline the steps involved.
3. a) Define the term “Human Processor”.
   b) List the key aspects of Psychological user model.
   c) Discuss the keystroke level model.
   d) Give the discussion on Black box model of human performance.

   OR

   Why quantitative analysis of performance is required? Discuss in detail by giving suitable example.

5. a) Explain psychological user model briefly.
   b) What is GOMS? Explain GOMS methods and selection rules briefly.

6. a) Explain Keystroke level model. Discuss its limitations.
   b) Discuss the benefits of Black box models of human performance.

4. a) Explain keystroke level model.
   b) Write short notes:
      i) Black Box model
      ii) Psychological user model.
5) a) Explain Black box model of Human performance and where it is used when a system design. (10)

b) Describe the terms of Heuristic Evaluation in human computer interaction. (10)

OR

6) a) Create a GOMS description of the task of “closing a window”. Use “pressing crtl+w keys” and “close option of file menu” methods. Assume hand starts on mouse. Using KLM explain which of the above method is more suitable for expert users. (12)

b) Discuss the psychological user models. (8)
(a) What is the difference between nominal, ordinal and quantitative variables?

(b) What do you understand by GOMS, and keystroke level model?

_or_

(a) What are the advantages and disadvantages of GOMS?

(b) Explain the black box models of human performance.
4. a) Define the term “cognitive walkthrough”.
   b) Discuss the purpose of design prototypes.
   c) What do you mean by mental models? Discuss in brief.
   d) Write short note on the following:
      i) Modeling of system understanding
      ii) Ubiquitous computing

OR

Give the discussion on GOMS descriptions of user performance.

7. a) Discuss the core cognitive aspects of HCI.
    b) Explain controlled experiments briefly.

8. a) Discuss the styles of Evaluation?
    b) What is Mental Model? Discuss the role of Mental Models in HCI.

5. a) What do you understand by cognitive walkthrough?
    b) Explain how the system in being evaluated to use from the perspective of a novice learning.
7) a) Using “Eight golden rules of Interface design” Evaluate Microsoft word interface. (10)  
b) Compare knowledge and mental models in HCI. (10)  

OR

8) a) What is cognitive walk through and when it is used. (10)  
b) How to evaluate from the perspective of a novice learning to use the system. (10)  

7. (a) What is the metaphor used for the interaction with the participants? Why is this metaphor good?  
(b) List the factors which make a system difficult to use in the user perspective. Elaborate each factor.  

Or

8. (a) Define metaphor with two examples.  
(b) Does it is necessary for evaluation team to have the expertise needed to do the evaluation? Justify your answer with example.
5. a) Why task analysis is required?  
b) What do you understand by contextual study?  
c) Discuss the term “cognitive dimension”.  
d) Discuss some emerging interaction techniques.  
   OR  
   Discuss the research issues and challenges available in the field of Human Computer Interaction.

9. a) Discuss the key issues of computer supported cooperative work.  
b) Explain new interaction techniques of HCI.  

10. Write short notes on the following:  
i) Ubiquitous computing  
ii) Contextual and qualitative studies  
iii) Use case driven designs
6. a) Differentiate with the help of example between contextual and qualitative studies.  7
    b) Explain briefly use-case driven design approach.  7

7. a) Write a short note on task analysis and design. 7
    b) Explain about ubiquitous computing?  7

8. Write short notes:
   i) Cognitive dimensions
   ii) Mental models
   iii) Heuristic evaluation
   iv) CSCW
9. (a) What do you mean by CSCW? What is asynchronous interactions and face to face communication in CSCW, explain with example. (10)

(b) Using the cognitive dimensions of notations describe two different usability issues that are likely to arise specifically when a user is creating and modifying programs on mobile phone. (10)

OR

10) Write a short note on :

a) CSCW
b) Obiquitous Computing
c) Use case Driven Design
d) Information VISUALIZATION

9. (a) Draw a conceptual diagram that illustrates the relationship between an interface, usability, user experience and the interaction between humans and computers.

(b) What happens when the user’s conceptual model differs from the designer’s intended conceptual model?

Or

10. (a) What is task related organization? Give its importance.

(b) What is a conceptual model? Give an example. What is the role of “mappings” in HCI design?