INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)

M.Tech II Semester End Examinations (Regular) - May, 2019

Regulation: IARE–R18

HUMAN AND COMPUTER INTERACTION

Time: 3 Hours   **(CSE)**   Max Marks: 70

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

UNIT – I

1. (a) Discuss the factors that can limit the speed of an interactive computer system. **[7M]**

   (b) What is Graphical Systems? How the user performance is improved using ergonomics? Explain. **[7M]**

2. (a) Why system training and documentation are also an integral part of any development effort. Discuss. **[7M]**

   (b) Show how it can be used to explain problems in the dialog between a user and a computer. **[7M]**

UNIT – II

3. (a) Explain any 5 important human characteristics in design. Examine the principles affecting learnability in detail. **[7M]**

   (b) Compare and contrast direct and indirect methods of requirements analysis. **[7M]**

4. (a) With help of Norman's Model of interaction, Examine the process of execution evaluation cycle. **[7M]**

   (b) What is the role of principles and standards? Define gulf of execution and gulf of evaluation with respect to this model? **[7M]**

UNIT – III

5. (a) What are the various functions of socio technical models? Point out the six key stages to carry out in a CUSTOM analysis? **[7M]**

   (b) Who is a stakeholder? Outline the types of stake holders and appraise the stakeholders for an airline booking system. **[7M]**

6. (a) Explain some of the organizational issues that affect the acceptance and relevance of information and communication systems in detail **[7M]**

   (b) What are the guidelines for selecting the proper device-based control? Explain in detail. **[7M]**

UNIT – IV

7. (a) List some ways to do some simple and fast mobile prototyping. **[7M]**

   (b) What is transition diagram? Explain its advantages and disadvantages with an example.

   [7M]

8. (a) Mention tools and what interface toolkits are available for it. Discuss various design tools for creating user interface. **[7M]**

   (b) Compare and contrast Mobile application medium types. What are menu- selection and dialog box trees and write it advantages. **[7M]**

UNIT – V

9. (a) Design a web interface for a "Library Management System". **[7M]**

   (b) Explain the combination of object selection and Toggle selection with suitable example. Analyze its advantages and disadvantages in detail **[7M]**

10. (a) Explain the features of QWERTY AND DVORAK LAYOUR. Compose the functional requirements you are considering. **[7M]**

    (b) Construe the patterns that support virtual pages used in the design of rich web UI. **[7M]**

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