

Total No. of Questions : 8]

SEAT No. :

**PD4246**

[Total No. of Pages : 2

**[6403]-40**

**T.E. (Computer) (AIDS)**

**HUMAN COMPUTER INTERFACE**

**(2019 Pattern) (Semester - V) (310245 B) (Elective - I) (Theory)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Figures to the right indicate full marks.*
- 3) *Neat diagram must be drawn whenever necessary.*
- 4) *Make suitable assumption whenever necessary.*

- Q1)** a) What is GUI? Elaborate Graphical user Interface in Details. [6]  
b) What is meant by interaction styles? Explain any two interaction styles. [6]  
c) Discuss software life cycle used in HCI system using appropriate example. [6]

OR

- Q2)** a) Explain Principles for UI/UX Design in details. Also give some application name. [6]  
b) What is design Rationale? Explain Usability Engineering with suitable example. [6]  
c) List down Norman's Seven rules. [6]

- Q3)** a) Discuss the GOMS Models with example. [6]  
b) Elaborate the objective measures of Usability, formative and summative evaluation. [6]  
c) Explain Cognitive walkthrough in detail. [5]

OR

- Q4)** a) Elaborate evaluation framework using following points : [6]  
i) Paradigms and techniques.  
ii) DECIDE : a framework to guide evaluation.  
b) Discuss the concept of designing in diversity. [6]  
c) Write short note on Heuristic evaluation and Usability testing in laboratory. [5]

**P.T.O.**

- Q5)** a) Explain vision based hand gesture recognition system using HCI Paradigms. [6]
- b) Discuss about handling missing data. What are the roles of Machine learning in HCI. [6]
- c) Describe following paradigms used for interaction in HCI [6]
- i) Time sharing
  - ii) Programming toolkit
  - iii) Agent based Interfaces

OR

- Q6)** a) Explain with example pattern recognition in HCI. [6]
- b) What do you mean by Ubiquitous Computing? What is its application? Explain with suitable example. [6]
- c) Compare Data Integrity versus Data immunity. [6]
- Q7)** a) What is significance of “navigation and toolbar” in HCI? Explain with example. [6]
- b) Write short note on : [6]
- i) Mini tablet format app.
  - ii) Searching, Sorting and Filtering.
- c) Describe anatomy of mobile app. [5]

OR

- Q8)** a) What is used of “Multi-touch gestures”? Explain various multi texture gesture used in Mobile devices. [6]
- b) Write short note on based on various devices : [6]
- i) Designing for kiosks
  - ii) Designing for audible interfaces
- c) Describe the “Inter-app integration”. [5]

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