

Total No. of Questions : 8]

SEAT No. :

**P484**

[Total No. of Pages : 2

[6003]-704

**T.E. (Information Technology)**  
**HUMAN COMPUTER INTERACTION INFORMATION**  
**TECHNOLOGY**  
**(2019 Pattern) (Semester - I) (314444)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answers : Q.1. or Q.2, Q.3 or Q.4., Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary.

**Q1)** a) What are User Profiles explain with example? [8]

b) Hierarchical task analysis (HTA) is used to describe the interactions between a user & software system. Draw & explain HTA to online bus reservation system? [9]

OR

**Q2)** a) Explain Norman's 7 stage model with example. [8]

b) Differentiate between Goals Vs Tasks. How does GOMS help in improving usability? Draw GOMS for CLOSE-WINDOW. [9]

**Q3)** a) Explain the principle of learnability and principle of flexibility with example. [9]

b) i) Draw and explain Software design process. [9]  
ii) Explain the importance of User Focus from HCI perspective.

OR

**Q4)** a) What is Prototyping? Explain the low-fidelity and High-fidelity designs with example. [9]

b) Consider any online food ordering system, draw model-view-controller (MVC) framework. Mention the necessary technology solutions available for each of MVC. [9]

**Q5)** a) Explain DECIDE framework with necessary diagram and an example of the same. [8]

b) What are the goals of evaluation? Explain Cognitive walkthrough and heuristics evaluation technique in detail. [9]

OR

*P.T.O.*

**Q6)** a) Explain user interface management system (UIMS) in detail along with its architecture? [8]

- b) Write a short note on. [9]
- i) Toolkits
  - ii) Usability testing

**Q7)** a) Explain [9]

- i) Augmented Reality
- ii) Virtual Reality along with real life examples of both.

b) Discuss in the detail the Challenges faced by designer while designing interfaces for [9]

- i) smart homes
- ii) smart devices

OR

**Q8)** a) Draw and explain Design thinking in detail for any suitable application.[9]

b) In today's world finding things on the web has become easy. Discuss how multimodal interaction has enriched the experience. [9]