

Total No. of Questions : 8]

**PA-1612**

SEAT No. :

[5926]-246

[Total No. of Pages : 2

**T.E. (Artificial Intelligence and Data Science)**

**HUMAN COMPUTER INTERFACE**

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

*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 side indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Make suitable assumption whenever necessary.

- Q1)** a) List the interaction styles and explain command line interfaces in detail. [6]  
b) Explain the Direct Manipulation interaction style with example [6]  
c) How does Menu selection interaction style impact on better user interface/Explain with example. [6]

OR

- Q2)** a) Explain any three Principles of User interface of design in detail. [6]  
b) What are the important aspects of Graphics to be considered in any web page interface designs? [6]  
c) Explain Usability Engineering in detail. [6]

- Q3)** a) Explain GOMS model with an example. [6]  
b) Compare and explain the Formative and Summative Evaluation methods. [6]  
c) Explain the Heuristic Evaluation concept with example. [5]

OR

- Q4)** a) Write a note on “Model based analysis”. [6]  
b) Write a note on DECIDE framework. [6]  
c) Write a note on “Usability testing in Laboratory”. [5]

P.T.O.

- Q5)** a) Write a note on “Sensor based and context aware Interaction” in HCI. [6]  
b) What are the important factors in Data Retrieval in HCI? Give example. [6]  
c) Explain the five stage search framework. [6]

OR

- Q6)** a) What is Hypertext? Explain with example. [6]  
b) What is the role of Pattern Recognition in HCI? Explain with example. [6]  
c) Write a note on “Machine learning and its importance in HCI”. [6]

- Q7)** a) Explain the basic anatomy of mobile app. [6]  
b) Explain the comparison between a handheld device user interface and a computer based user interface with example. [6]  
c) What are the important aspects to be considered when designing help screens in a mobile app? [5]

OR

- Q8)** a) Explain the interface constraints of Mobile apps. [6]  
b) Explain the Navigation and Toolbars used in mobile apps. [6]  
c) Write a short note on “Sorting and Filtering” in mobile apps. [5]

