SEAT No. :

PB3782

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[6262]-40

T.E. (Computer)/(Artificial Intelligence and Data Science)
HUMAN COMPUTER INTERFACE
(2019 Pattern) (Semester- I) (310245 B) (Elective- I)

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 and Q.7 or Q.8.*
2) *Figures to the right indicate full marks.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Make suitable assumption whenever necessary.*

Q1) a) What is meant by design? Which are the important points needed to consider for designing? **[6]**

b) Explain what is mean by human error in detail. **[6]**

c) List out Eight golden rules. **[6]**

OR

Q2) a) Explain the process of design using suitable example. **[6]**

b) Discuss the Software Life cycle used in HCI system using appropriate example. **[6]**

c) Elaborate Graphical User Interface in Detail. **[6]**

Q3) a) Elaborate Evaluation framework using following point: **[6]**
  i) Paradigms and Techniques
  ii) DECIDE: a framework to Guide Evaluation

b) Elaborate usability assessment in the design process. **[6]**

c) Explain formative and summative evaluation. **[5]**

OR

Q4) a) Explain analytic methods and model-based analysis. Write short note on usability specification for evaluation. **[6]**

b) Elaborate GOMS model. **[6]**

c) Elaborate universal design principles in detail. **[5]**

Q5) a) explain vision-based Hand Gesture Recognition System using HCI paradigms. **[6]**

b) What is mean by paradigm? Explain in detail. **[6]**

c) What is mean by ubiquitous computing? Which are the applications of it? Explain with suitable example. **[6]**

OR

P.T.O.

Q6) a) Explain the following terms: **[6]**
  i) Sensor-based interaction
  ii) Context-aware interaction
  iii) Data integrity and data immunity

  b) Elaborate the term auditing versus editing using Nielson heuristic principles. **[6]**

  c) Explain "Five stage framework" using suitable HCI system. **[6]**

Q7) a) Explain Norman's principles of Design in software. **[6]**

  b) Elaborate designing for mobile and other devices in detail. **[6]**

  c) Write short note on: **[5]**
  i) Mobile form factors
  ii) Handheld format apps
  iii) Tablet format apps
  iv) Mini-tablet format apps
  v) Mobile Navigation

OR

Q8) a) What is the significance of "navigation and toolbars" in HCI? Explain. **[6]**

  b) Discuss the drawers used in HCI system. Explain item-level drawers in detail. **[6]**

  c) Describe the term "Inter-app Integration" in detail. **[5]**

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