5E1357

B. Tech. V - Sem. (Main / Back) Exam., January - 2022
PCC / PEC Computer Science & Engineering
5CS5 – 11 Human Computer Interaction

Time: 2 Hours

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Maximum Marks: 80
Min. Passing Marks: 28

Instructions to Candidates:

Attempt all five questions from Part A, four questions out of six questions from Part B and two questions out of three from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. <u>NIL</u> _____ 2. <u>NIL</u> _____

PART – A

(Answer should be given up to 25 words only) [5×2=10]

All questions are compulsory

Q.1 What is meant by Human-Computer Interaction?

Q.2 Explain limitations of GOMS.

Q.3 Define Norman's model of interaction.

Q.4 What are goals of design?

Q.5 State Hierarchical Task Analysis (HTA).

PART – B

Q.1 Draw the block diagram representing Human-Computer Interaction *framework* and *discuss* it.

Q.2 Explain in detail about the Evaluation Techniques.

Q.3 Write short note on –
   (a) Engineering task models
   (b) Concur Task Trees (CTT)

Q.4 *Explain* Empirical Research methods for Human-Computer Interaction with suitable example.

Q.5 Discuss in detail about GUI design and Aesthetics.

Q.6 Describe Nielsen's ten heuristics with example of its use heuristics evaluation.

PART – C

Q.1 Write short note on –
   (a) OOP introduction
   (b) Object oriented modeling of user interface design

Q.2 Explain introduction to formalism in dialog design and also explain Finite State Machines with suitable example.

Q.3 Discuss in detail about experimental design and data analysis with explanation of one-way ANOVA.