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**B.TECH**  
**(SEM VII) THEORY EXAMINATION 2021-22**  
**HUMAN COMPUTER INTERFACE**

**Time: 3 Hours****Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

a.	How menu choices can be selected? Explain
b.	Compare the application oriented approach and object -oriented approach in designing GUI.
c.	Discuss the history of screen design.
d.	Compare the print page design and web page design.
e.	Compare 1970's screen and 1990's screen.
f.	What are the advantages and disadvantages of Menus used in GUI application?
g.	Enlist the evaluation methods or user interface required to be conducted for efficient design.

**SECTION B****2. Attempt any three of the following:****7 x 3 = 21**

a.	Discuss the impact of inefficient screen design on processing time with an example.
b.	Discuss the important human characteristics which have influence on interface and screen design.
c.	Explain the details about the factors considered in choosing colors.
d.	Identify the characteristics and capabilities of the following device-based controls (i) joystick (ii) track ball (iii) light pen
e.	Explain the role of software engineering tools in building the user interface.

**SECTION C****3. Attempt any one part of the following:****7 x 1 = 7**

(a)	Give a brief note about icon animation and audition. What are the issues to be considered in combining medium? Explain.
(b)	What are the typical characteristics of proper screen based controls? Explain in details.

**4. Attempt any one part of the following:****7 x 1 = 7**

(a)	Write short notes on following : (i) Usability of user interface (ii) Testing of user interface.
(b)	Write short notes on following : (i) Virtual reality (ii) Cognitive issues in interaction.

**5. Attempt any one part of the following:****7 x 1 = 7**

(a)	Explain the role of human factors in user centered design.
(b)	Write down the criteria for acceptability. "Acceptability leads to healthy interaction". Justify the statement

**6. Attempt any one part of the following:****7 x 1 = 7**

(a)	Only positive thinking is not the only means to achieve successful usability testing. What are the other factors that must be considered to achieve usability testing of better quality.
(b)	User Interface Design is notably influenced by evaluation. How does it affect the usability of the user Interface? What are the types of evaluation? explain in detail.

**7. Attempt any one part of the following:****7 x 1 = 7**

(a)	Explain the three distinct connected areas for retention of information in memory. Why engineers should remember the characteristics of software system during development process of software system?
(b)	Why speech technologies so important in multimodal interaction design, even for normal user? What can be the possible advantages and disadvantages when designing a speech interactive system?