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BTECH
(SEM V) THEORY EXAMINATION 2024-25
HUMAN COMPUTER INTERFACE

TIME: 3 HRS**M.MARKS: 100****Note:** Attempt all Sections. In case of any missing data; choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Q no.	Question	CO	Level
a.	What are the core principles of user interface design?	1	K2
b.	What is a user interface (UI)?	1	K2
c.	What are some common challenges users face when interacting with computers?	2	K3
d.	What are the main goals of human-computer interaction design in ensuring a better user experience?	2	K3
e.	What is meant by focus and emphasis in screen design?	3	K4
f.	What are two best practices for improving information retrieval on the web?	3	K4
g.	What factors should be considered when selecting a new window for an interface design?	4	K4
h.	What factors should be considered when choosing colors for an interface design?	4	K4
i.	What is the process of digitization in interface design?	5	K3
j.	What is the importance of image and video displays in user interfaces?	5	K3

SECTION B**2. Attempt any three of the following:****10 x 3 = 30**

Q no.	Question	CO	Level
a.	What are the primary benefits of good user interface design? How does good UI design improve user productivity?	1	K4
b.	What is meant by human interaction speed in the context of user interface design? How do different human interaction speeds impact the effectiveness of a system's user interface?	2	K5
c.	What technological considerations must be taken into account during interface design to ensure compatibility, performance, and security?	3	K5
d.	How do screen-based controls improve the accessibility of an interface? Why might a designer choose device-based controls over window-based controls in certain contexts?	4	K5
e.	What is speech recognition in interface design? How can speech recognition improve accessibility in user interfaces?	5	K4

SECTION C**3. Attempt any one part of the following:****10 x 1 = 10**

Q no.	Question	CO	Level
a.	What are the '8 good design principles' for user interface design? Explain.	1	K4
b.	What are the key characteristics of a graphical user interface (GUI)? What are the design considerations when building a graphical system for users?	1	K4

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TIME: 3 HRS**M.MARKS: 100****4. Attempt any one part of the following: 10 x 1 = 10**

Q no.	Question	CO	Level
a.	What are the eight key human characteristics to consider in user interface design? Explain.	2	K5
b.	What are the main design goals when creating effective screens for a digital system? How do design goals like clarity, simplicity and consistency contribute to screen design?	2	K5

5. Attempt any one part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	What are the 8 principles for organizing screen elements, and how do they contribute to effective user interface design?	3	K5
b.	What factors must be considered when planning screen navigation and flow to ensure a smooth user journey?	3	K5

6. Attempt any one part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	What are 8 selection of devices based and screen based controls? Explain.	4	K5
b.	What role does color play in creating a visually appealing and functional interface? What are some common problems associated with poor color choices in interface design?	4	K5

7. Attempt any one part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	What is the role of a keyboard in user interface design? How do function keys enhance the user experience?	5	K4
b.	What is the role of pointing devices in user interfaces? What are some common types of pointing devices used in interface design?	5	K4