VIT
Vellore Institute of Technology
CHENNAI

Reg. Number:	

Continuous Assessment Test (CAT) – I - JAN 2025

Programme	:	B.Tech. CSE and its Specializations	Semester	Winter 2024-25
Course Code & Course Title	:	**BCSE415L Human Computer Interaction**	Class Number	**CH2024250502026 CH2024250502034**
Faculty	:	**Dr. PRAVEEN JOE I R Dr.M.VIDHYALAKSHMI**	Slot	**C1+TC1**
Duration	:	**90 mins**	Max. Mark	**50**

General Instructions:

- Write only your registration number on the question paper in the box provided and do not write other information.
- Use scale and pencil, draw diagrams and give illustrations whenever necessary

Answer all questions

Q. No	Sub Sec.	Description	Marks
1		Discuss how human cognitive processes, including memory, thinking, reasoning, and problem-solving, influence the design of user interfaces in Human-Computer Interaction. In your answer, consider the role of emotion in user experience and how emotional responses can impact decision-making and interaction with technology. Provide one detailed illustration to support your arguments.	15
2		Imagine you are designing an advanced software application for an architect working on the blueprint of a new building. The application allows the architect to design the building in a 3D environment, edit floor plans, and visualize different design elements in real time. The architect will need to input detailed specifications, make precise changes, and explore the design from different perspectives. To enhance the user experience and streamline workflow, you decide to incorporate a range of input and display devices, including text entry devices, positioning and pointing tools, display devices, and 3D interaction tools. In the context of the architecture design software described above, explain how you would incorporate **at least 10 different devices** for text entry, positioning, pointing, drawing, display, and 3D interaction to facilitate the architect's tasks. In your answer, discuss the specific role of each device and how it contributes to improving the user's efficiency, accuracy, and overall experience in the design process.	15

3		Consider two human problem solving models of your choice. How might they complement each other in a real-world problem-solving scenario? Provide an example of a problem where both models could be applied, highlighting the strengths and potential limitations of each model in that context.	10
4		Imagine you are designing the interface for a new mobile banking application. The app is meant to be used by a wide range of customers, from tech-savvy users to those with minimal experience using smartphones. The goal is to make the app user-friendly, intuitive, and efficient, ensuring that users can perform tasks such as checking balances, transferring money, and paying bills without confusion.	10