

CBCS SCHEME

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BAI613A

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2026 Human Centered AI

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Explain the concept of Human Centered Artificial Intelligence (HCAI). How does it differ from traditional approaches to AI?	10	L3	CO1
	b.	Analyze the question “Are people and computers in the same category”? With respect to cognitive abilities , emotion and moral reasoning ,provide example to support your answer.	10	L2	CO1
OR					
Q.2	a.	Critically evaluate the concern that automation , AI and Robotics will lead to wide spread unemployment. What are the arguments for and against this view?	10	L3	CO1
	b.	Discuss how human centered AI can address the challenges posed by increasing automation. What steps can be taken to ensure AI enhances rather than replaces human capabilities.	10	L2	CO1
Module – 2					
Q.3	a.	Explain the concept of Human – Centered AI (HCAI). How does it differ from traditional AI approaches in terms of goals , values and user interaction.	10	L3	CO2
	b.	Define a Reliable, Safe and Trustworthy systems.	10	L3	CO2
OR					
Q.4	a.	Explain Two – Dimensional HCAI frame work with example.	10	L2	CO2
	b.	Outline 8 Golden rules for the building Human – Centered AI system.	10	L2	CO2
Module – 3					
Q.5	a.	Explain the concept of design metaphors in Human – Computer Interaction (HCI). How do design metaphors contribute to innovation in science and technology? Provide examples to illustrate your answer.	10	L3	CO3
	b.	Discuss the role of Intelligent agents and super tools as design metaphors in user interface design. How do they enhance human capability and support complex tasks?	10	L3	CO3
OR					

Q.6	a.	Compare and contrast the metaphors of teammates and tele – bots in collaborative environments. How do these metaphors influence the design of AI – driven communication and task sharing systems?	10	L3	CO3
	b.	Evaluate the social and ethical implication of using social robots and active appliances as design metaphors. In what ways to these metaphors reshape Human Interactive with machine in everyday life?	10	L2	CO3
Module – 4					
Q.7	a.	Explain the role of sound software engineering practices in establishing reliable governance systems.	10	L3	CO4
	b.	Discuss how a strong safety culture can be cultivated through effective business management strategies.	10	L2	CO4
OR					
Q.8	a.	Evaluate the significance of independent over sight in the certification process of governance system. How does it contribute to trust worthiness and accountability?	10	L3	CO4
	b.	Provide an overview of governance structures in critical systems. How do the components of software engineering , business strategy and oversight interrelate to ensure reliability and safety?	10	L3	CO4
Module – 5					
Q.9	a.	Discuss the role of government intervention and regulation in ensuring the ethical and responsible development of Health care AI. Provide examples of specific policies or pavements and evaluate their effectiveness.	10	L3	CO5
	b.	Explain the key factors deriving the advancement of Health Care Artificial Intelligence (HCAI). How do innovatiom , collaboration and stakeholder involvement contribute to the successful integration of HCAI in health care systems?	10	L3	CO5
OR					
Q.10	a.	What are the major dimensional trustworthiness in HCAI systems? Critically analyze how transparency , accountability and validation process impact user trust in Healthcare AI tools.	10	L3	CO5
	b.	Evaluate how HCAI can support the care of older adults. Discuss the potential benefits and challenges and describe how data from older adult care can be used to improve future AI – driven Health Interventions.	10	L3	CO4

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