CBCS SCHEME

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BAI613A

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025
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.	What do you mean by HCAI and what makes it different from AI.	6	L2	CO1
	b.	Explain with a neat diagram, the 3 fresh ideas that are foundations for the HCAI.	10	L2	CO1
	c.	From the HCAI perspective, justify the statement that humans and computers are fundamentally different.	4	L3	CO1
		OR			
Q.2	a.	With the help of real world scenario discuss the success and failures of AI.	10	L3	CO1
	b.	With Automation, AI and robots lead to widespread unemployment? Suggest solution and policies to overcome that challenges.	10	L2	CO1
		Module – 2			
Q.3	a.	Interpret Shridan and Verplank's one-dimensional mode. Explain the limitations of this model.	10	L2	CO2
	b.	List and explain the right golden rules of UI design.	10	L2	CO2
		OR			
Q.4	a.	With a neat figure, explain the two-dimensional framework.	10	L2	CO2
	b.	Analyze the two-dimensional framework for Patient-Controlled Analgesia (PCA) design.	10	L2	CO2
		Module – 3			
Q.5	a.	With a neat diagram, explain the primary goals of AI. Differentiate between science and innovation goals.	10	L4	CO3
	b.	Explain in detail about the intelligent agent and super tools. Which one would be more preferable design metaphor?	10	L3	CO3
		OR			
Q.6	a.	Why are robots not trammates? What is an alternative design metaphor for a trammate?	10	L3	CO3
	b.	Explain the features of social robots and active appliances. Also give the real time applications for the same.	10	L3	CO3

		Module – 4			
Q.7	**a.**	What are reliable systems in HCAI? Explain the software engineering approaches followed to produce reliable HCAI systems.	**10**	**L3**	**CO4**
	b.	Explain the different ways manager can support HCAI in building on the safety culture support.	**10**	**L3**	**CO4**
		OR			
Q.8	**a.**	Explain 5 popular testing techniques can be applied to reliable HCAI systems.	**10**	**L2**	**CO4**
	b.	According to Batya Fried-man and Helen Nissenbaum describe three kinds of bias.	**5**	**L2**	**CO4**
	c.	What are the three independent oversight methods used by different organizations to stimulate discussions, plans, processes and analyze failures.	**5**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	What is the global overview of government approaches to AI regulations?	**10**	**L2**	**CO5**
	b.	Which approaches are commonly employed to measure the human-centric qualities of AI systems?	**10**	**L3**	**CO5**
		OR			
Q.10	**a.**	Explain the four main steps needed to be taken to develop a credible trustworthiness assessment process.	**10**	**L2**	**CO5**
	b.	How can HCAI technologies be applied to assist the elderly in their daily lives.	**10**	**L3**	**CO5**

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