

CBCS SCHEME



BAI358B

Third Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024

Ethics and Public Policy for AI

Time: 2 hrs.

Max. Marks: 50

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.	Explicate four core opportunities offered by AI. The corresponding risks and the opportunity cost of under using AI.	5	L1	CO1
	b.	Brief about unified framework of five principles for Ethical AI.	5	L1	CO1
OR					
Q.2	a.	Define AI. Illustrate the opportunities and risks of AI for Enabling Human Self realization, enhancing human agency, without removing human responsibility.	5	L1	CO1
	b.	Defend the following with respect to Ethical AI: (i) The Dual Advantage of an Ethical Approach to AI. (ii) AI should never be Beta-tested on humans or the Environment.	5	L1	CO1
Module – 2					
Q.3	a.	Brief about the Ethics shopping, Ethics Blue Washing in translating principles into practices of digital ethics.	5	L2	CO2
	b.	Implement the following Essential factors for successful AI45G : (i) Falsifiability and Incremental Deployment. (ii) Safeguards against the manipulation of Predictors. (iii) Receiver-Contextualized Intervention.	5	L2	CO2
OR					
Q.4	a.	Describe the six types of Ethical concerns raised by algorithms.	5	L3	CO2
	b.	Justify how unfair outcomes leading to Discrimination and how Traceability leading to moral responsibility.	5	L3	CO2
Module – 3					
Q.5	a.	Interpret how Receiver-Contextualized explanation and transparent purposes is essential for having successful AI.	5	L1	CO3
	b.	Why there is a gap between the principles and practices of ethical AI? What is the impact of this gap?	5	L1	CO3
OR					
Q.6	a.	Illustrate the importance of considering the following factors for successful AI45G: (i) Privacy protection and Data Subject consent. (ii) Situational Fairness. (iii) Human-Friendly semanticisation.	5	L1	CO3
	b.	Illustrate the limitations of Research works in the development of Ethical AI/ML product.	5	L1	CO3
Module – 4					
Q.7	a.	Describe the importance of scope, risk identification and assessment and defined roles and responsibilities during design phase in managing risks of AI.	5	L1	CO4
	b.	List and brief about the different regulatory principles equally apply to AI product in building phase.	5	L1	CO4
OR					
Q.8	a.	Illustrate how to manage risks of during product ionize phase or deploying phase of AI product.	5	L1	CO4
	b.	With neat figure of AI Road map, describe the different AI paradigms and the AI problem domains.	5	L1	CO4

Module – 5					
Q.9	a.	Describe the strategies for Ensuring patient privacy and data security.	5	L1	CO5
	b.	Illustrate the challenges in Ensuring the values and Ethical principles embedded in the system that Align with human values and societal norms.	5	L1	CO5
OR					
Q.10	a.	List out the implications of medical bias in healthcare and explicate how to ensure equitable healthcare AI.	5	L1	CO5
	b.	Brief about the challenges, Disruptions and benefits of adopting AI in workforce and Business.	5	L1	CO5
