COER University
END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time	: 3 hours	Total Marks : 100
Program Name	: B.Tech.(CSE, AI&ML, Cyber Security)	Semester : II
Course Name	: Emerging Trends in IT	Course Code : BTCS211

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Explain the significant components of modern AI.	CO 1	1
(b)	Define the role of sensors and actuators in embedded systems?	CO 1	1
(c)	Describe different types of machine learning algorithms?	CO 1	2
(d)	What is the various functional block of IoT?	CO 1	4
(e)	Define the role of a microcontroller in an embedded system?	CO 1	1

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Define the key considerations when designing the logical architecture of an IoT system?	CO 2	1
(b)	Define some of the most significant challenges facing the adoption of IoT technology in developing countries?	CO 2	1
(c)	Explain various IoT levels and deployment templates.	CO 2	1
(d)	What is digital evidence? Also, explain various challenges in handling digital evidence.	CO 2	2
(e)	Write short notes on any of the two: i. Ping sweeping ii. Wireless LANs. iii. Original vs Duplicate digital evidence	CO 2	4

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Define the consequences of unethical behaviour in digital forensic investigations?	CO 3	1
(b)	Compare and contrast RMDFR, ADFM, and IDIP. How do they differ in terms of their approach to digital forensic investigations?	CO 3	3
(c)	State different types of hacking in information technology.	CO 3	1
(d)	Discuss the general ethical norms for investigators in digital forensics. How can they be upheld in practice?	CO 3	2
(e)	What is ethical hacking and why it is so popular hacking among all?	CO 3	1

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	What do you understand by means of the dangers that your systems face?	CO 4	1
(b)	Discuss the concept of a digital stream of bits and its role in digital forensics.	CO 4	2
(c)	Describe documented evidence in digital forensics and its significance in investigations.	CO 4	2

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Explain the different types of hackers and also difference between ethical and unethical hacking?	CO 5	1
(b)	What are the best practices for minimizing database security risks? Explain in detail.	CO 5	2
(c)	Write the pros and cons along with the technical working of various e-mail attacks.	CO 5	4

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