	Q. Code:544250											
Reg. No.												

# **B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2023**

Seventh Semester

# **IT18701 – CYBER FORENSICS**

(Information Technology) (Regulation 2018)

**TIME: 3 HOURS** 

#### MAX. MARKS: 100

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Relate the fundamentals of computer forensics, laws, report writing and tools in digital Investigations.	2
CO 2	Assess the investigative smart practices and applicability of concerned laws & investigative tools.	5
CO 3	Inspect the acquired data, recover the deleted data and manage a case	3
<b>CO 4</b>	Select the correct method to handle the digital evidence and acquire appropriate certification to build the career in digital forensics.	5
CO 5	Create a method for gathering, assessing and applying new and existing legislation specific to the practice of digital forensics.	6

## PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	State the future scope of cyber forensics.	1	1
2.	Convert by Encoding the following message using Hex conversion method: Cyber Forensics	1	4
3.	Convert by Decoding the Hex message: 496E666F726D6174696F6E	2	2
4.	List the types of witnesses used in computer forensics.	2	3
5.	Explain whether it is possible or not that a file that has been deleted by the user can be recovered	3	2
6.	Compare System metadata and substantive metadata.	3	4
7.	Identify the areas that are focused for digital forensic certification.	4	3
8.	Explain how the router logs can be used to verify the E-mail data?	4	2
9.	List down the essential characteristics of a cloud.	5	3
10.	Compare community cloud and hybrid cloud.	5	4

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#### **PART-** B (5 x 14 = 70 Marks)

		Marks	CO	RBT LEVEL
11. (a)	Explain the various professional certification courses available in the	(14)	1	2
	field of cyber forensics. (OR)			
(b)	Explain various types of hard disk and memory devices used in computer forensics.	(14)	1	2
12. (a)	Illustrate in detail about the forensic investigation process with an example.	(14)	2	3
	(OR)			
<b>(b)</b>	Explain the importance of Time stamping and clock models in computer forensics with suitable examples.	(14)	2	3
13. (a)	Examine the various laws affecting the forensic investigations.	(14)	3	3
	(OR)			
(b)	Illustrate the importance of Time stamping and clock models in computer forensics with suitable examples.	(14)	3	3
14. (a)	Explain the procedure for collecting live data and various file formats for disk images.	(14)	4	4
	(OR)			
(b)	Illustrate the process of analyzing the forensic document in detail.	(14)	4	4
15. (a)	Explain the contents of an E-mail and the procedure to trace the source	(14)	5	4
	of an E-mail.			
(b)	Explain the process of Mobile device forensics and the tools used for	(14)	5	4
	the same. $\mathbf{P} = \mathbf{P} \mathbf{T} \cdot \mathbf{C} \left( 1 = 10 \cdot \mathbf{M} \mathbf{c} \mathbf{c} \mathbf{c} \right)$			
	$\frac{PARI - C (I \times I0 = 10 \text{ Marks})}{(O.No.16 \text{ is compulsory})}$			
		Marks	CO	RBT
				LEVEL
16.	Decide and Evaluate the cyber forensics system that go about conducting the investigation for the given case study: A publicinstitution was the victim of a hacker. The subject got into the network and placed several large media files on several computers and changed the desktop configurations. Management decided against calling law enforcement initially (because of media attention) and instructed the IT department to get a cyber-forensics	(10)	5	5

system to privately investigate.