Register Number:……..

KUMARAGURU
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B.TECH DEGREE EXAMINATIONS: MAY 2023

(Regulation 2018)

Sixth Semester

INFORMATION TECHNOLOGY

U18ITT6001: Information Security

COURSE OUTCOMES

CO1:	Describe threats to information security and security SDLC.
CO2:	Identify the security threats and attacks.
CO3:	Analyze the mechanism to assess and control risk.
CO4:	Describe the types of security policies and standards.
CO5:	Identify security issues related to personnel decisions, and qualifications of security personnel.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	List and explain the multiple layers of security in place for an organization should have to protect its operations.	CO1	[K_2]
2.	Why is the top-down approach to information security superior to the bottom-up approach?	CO1	[K_2]
3.	Name some important functions of information security for an organization.	CO2	[K_2]
4.	Outline the difference between attack and vulnerability.	CO2	[K_2]
5.	Explain the principles of policy and law for an organization to maintain security in an organization.	CO3	[K_2]
6.	Tabulate the components of risk management.	CO3	[K_2]
7.	Illustrate the criteria's for a policy to be effective and thus legally enforceable.	CO4	[K_2]
8.	What is contingency planning? How is it different from routine management planning? What are the components of contingency planning?	CO4	[K_2]
9.	What is the relationship between a TCP and UDP packet? Will any specific transaction usually involve both types of packets?	CO5	[K_2]
10.	What is a honeypot? How is it different from a honeynet?	CO5	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Briefly describe about critical characteristics of Information.	6	CO1	[K_2]
	b)	Enumerate the steps common and unique to both the systems development life cycle and the security systems development life cycle	10	CO1	[K_3]

12.	a)	What are categories of threat to an organization, explain the categories of thread with necessary examples.	10	CO2	[K_2]
	b)	Explain the following types of attacks with an example. i) Password crack ii) Denial-of-Service (DoS) and Distributed Denial-of-Service (DDoS) iii) Sniffers	6	CO2	[K_3]
13.	a)	Explain in detail about the risk identification process for information security of an organization.	8	CO3	[K_2]
	b)	Enumerate the types of risk control strategies used by organizational management for information systems.	8	CO3	[K_2]
14.	a)	What is BS7799:2? List the major process steps involved for security standards.	8	CO4	[K_2]
	b)	Explain how spheres of security are the foundation of the security framework? How spheres of security are used to illustrate the information is under attack from a variety of sources?	8	CO4	[K_3]
15.	a)	What is an IDPs? Explain the types of IDPs used for information system in an organization.		CO5	[K_2]
16.	a)	Briefly describe about the types of scanning and analysis tools		CO5	[K_2]

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