NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P. J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

Course : B.Tech   **Branch : CSE.**

Semester : III   **Sessional Examination : Third**   **Year- (2021 – 2022)**

Subject Name: Cyber Security

Time: 1.15Hours   **[SET- B]**   **Max. Marks:30**

General Instructions:

➤ This Question paper consists of 2 pages & 5 questions.It comprises of three Sections, A, B, and C

➤ Section A -Question No- 1 is objective type questions carrying 1 mark each, Question No- 2 is very short answer type carrying 2 mark each. You are expected to answer them as directed.

➤ Section B - Question No-3 is Short answer type questions carrying 5 marks each. Attempt any two out of three questions given.

➤ Section C -Question No. 4 &5are Long answer type (within unit choice) questions carrying 6marks each. Attempt any one part *a or b*.

		SECTION – A	**[08Marks]**	
1.		**All questions are compulsory**	(4×1=4)	
	a.	Components of digital signature are as follows: (i) Name (ii) Contact details (iii) Public key (iv) All of the above	(1)	CO5
	b.	The risk management process involves (i) framing,deciding,execution and deleting (ii) framing, assessing,monitoring and responding (iii) monitoring,assessing,executing and deleting (iv) All of the above	(1)	CO3
	c.	The concept which deals with hiding the internal details are (i) Layering (ii) Abstraction (iii) Security domains (iv) Ring Model	(1)	CO3
	d.	In the RSA algorithm, we select 2 random large values 'p' and 'q'. Which of the following is the property of 'p' and 'q'? (i) p and q should be divisible by $\Phi(n)$ (ii) p and q should be co-prime (iii) p and q should be prime (iv)p/q should give no remainder	(1)	CO4
2.		**All questions are compulsory**	(2×2=4)	
	a.	Why do we require a policy for information security?	(2)	CO5
	b.	What are cryptographic attacks ?Explain in detail?	(2)	CO4

		SECTION – B	[10Marks]	
3.		**Answer any <u>two</u> of the following-**	(2×5=10)	
	a.	What do you mean by digital signatures? Why do we use it? Explain in detail?	(5)	CO4
	b.	Describe RSA algorithm with an example?	(5)	CO4
	c.	Discuss about patents,patentable inventions and non-patentable inventions?	(5)	CO5
		SECTION – C	[12Marks]	
4		**Answer any <u>one</u> of the following-**	(1×6=6)	
	a.	What are the activities involved in the process of management of risks related to information assets of an organization?	(6)	CO3
	b.	What is security in developing applications?What are the primary issues related to the secure development of applications?	(6)	CO3
5.		**Answer any <u>one</u> of the following-**	(1×6=6)	
	a.	What are the benefits of the common framework used for developing secure applications? What are the factors for this framework ? Explain i n detail about the guidelines?	(6)	CO3
	b.	Explain SET in detail?	(6)	CO4