Program:	T.Y.B.Sc CS	**Semester:**	V	**Program Code:**	UGCS02
Course:	Indian Knowledge Systems in Cryptography			**Course Code:**	NUCS503
Duration:	1 Hour	**Examination Pattern:**	NEP-Autonomous - External	**Max. Marks:**	30

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.
4. CO (Course Outcome), KL (Knowledge Level).

Examination:

REGULAR

Q. 1		**Attempt any TWO of the following.**	[10]	CO's	KL's
	(a)	Explain the meaning and scope of Indian Knowledge Systems (IKS)		CO1	L2
	(b)	Describe the major features of Panini's Grammar.		CO1	L2
	(c)	Define Terms : i) Espionage ii) Vedas iii) Hash Function		CO2	L1
	(d)	Illustrate how the principles of Indian Knowledge Systems can be applied to modern information security.		CO5	L3
Q. 2		**Attempt any TWO of the following.**	**[10]**	**CO's**	**KL's**
	(a)	Explain Vedic Mathematics, pattern recognition, and logical structures in relation to computational thinking.		CO3	L2
	(b)	What are the fundamentals of encryption and decryption? Differentiate between symmetric and asymmetric cryptography.		CO4	L4
	(c)	Describe the role of Blockchain and Artificial Intelligence in modern information security.		CO4	L2
	(d)	Write short notes on : i) Ethical hacking, ii) Cyber Defense		CO5	L2
Q. 3		**Attempt any TWO of the following.**	**[10]**	**CO's**	**KL's**
	(a)	Define various characteristics of Indian Knowledge Traditions		CO1	L4
	(b)	Write a note on traditional security concepts.		CO2	L2
	(c)	Discuss the various secret communication methods used in ancient Indian kingdoms.		CO2	L3
	(d)	Explain Arthashastra and discuss its contribution to strategic intelligence and governance.		CO2	L2

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