

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

School of Computing Science and Engineering

Master of Technology in Computer Science and Engineering

Mid Term Examination - May 2024

Duration : 90 Minutes

Max Marks : 50

Sem II - R1PV209T - Cryptography and Computer SecurityGeneral Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Explain Two key cryptography. K2 (2)
- 2) Summarize vernam cipher with example. K1 (3)
- 3) Demonstrate the model of network security with a diagram. K2 (4)
- 4) Rephrase any symmetric key cryptography algorithm in detail with the help of block diagram. K2 (6)
- 5) How do block cipher design principles contribute to achieving cryptographic security? K3 (6)
- 6) Encrypt "QUESTION" using One Time Pad cipher using KEY "QHSPNGXB". K3 (9)
- 7) Compare cryptography and steganography. Discuss the types of steganography. K4 (8)
- 8) Consider the elliptic curve $E_{11}(1, 6)$; that is the curve is defined by $y^2 = x^3 + x + 6$ with a modulus of $P=11$. Calculate all the points in $E_{11}(1, 6)$. Start by calculation the right hand side of the equation of all the values of n ? K4 (12)

ORExamine the round operation of AES. How AES differs from DES? K4 (12)