EXTA

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Jan 2026

~~May-June 20__/ Nov- Dec 2025~~_ ~~July-Aug 20__~~/ ~~Feb- March 20~~__
(B. Tech / M. Tech.) Program: _**B.Tech. (Information Technology)**___Scheme I/II/IIB/III:_**III**_
~~Regular/~~Supplementary Examination: TY Semester: **V**
Course Code: _**ITC503**_and Course Name: _**Cyber Security** _
Date of Exam: ~~28/11/2025~~ 02/02/2026 Duration: 02.5 Hours Max. Marks: 60

Instructions:
(1)All questions are compulsory.
(2)Draw neat diagrams wherever applicable.
(3)Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any **two** questions out of three: (05 marks each)	10		
a)	Differentiate between Threats and Attacks in cyber security.		CO1	U
b)	Differentiate between proxy servers and anonymizers with examples.		CO3	U
c)	Describe the forensic relevance of each OSI layer.		CO5	An
Q 2	Solve any **two** questions out of three: (05 marks each)	10		
a)	Define reconnaissance in hacking.		CO2	U
b)	Explain the importance of maintaining integrity and authenticity of digital evidence.		CO4	Ap
c)	Discuss the advantages and limitations of using AI in cybersecurity operations.		CO6	Ap
Q.3	Solve any **two** questions out of three. (10 marks each)	20		
a)	Apply the concept of Chain of Custody to a scenario where digital evidence is collected from a suspect's computer.		CO4	Ap
b)	Explain the organizational guidelines to secure mobile devices.		CO3	U
c)	Explain the role of security services and mechanisms in protecting information.		CO1	U
Q.4	Solve any **two** questions out of three. (10 marks each)	20		
a)	Describe tools and methods used in cybercrime for following: a. Keyloggers b. Phishing Kits c. Remote Access Tools (RATs) d. Botnets		CO3	U
b)	Analyze the role of packet sniffing and log analysis in network forensic investigations.		CO5	An
c)	a) Discuss any two types of phishing in cyber security. b)Discuss the advantages of using AI in malware detection.		CO2 CO6	U U

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