



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

InSem Examination-II Summer 2025	
Exam Seat No.:	
Academic Year: 2024-2025	Semester: VI
Class: TY	Program: B.Tech
Branch Code: ADS/COM	Pattern: 2022
Name of Course: Cyber Security and Privacy	Course Code: COM223021
Max. Marks: 30	Duration: 1:15 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 pages.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.

Marks CO

Question No. 1

- 1 a) Define Cyber Security. Explain key terms used in cyber security? (3) CO1
- 1 b) Illustrate any two types of cyber-attacks affecting information with suitable example. (4) CO1

Question No. 2

- 2 a) Explain the role of Cyber space. Describe the relation between cyber space and cyber security. (4) CO1
- 2 b) Explain malware. Enlist their characteristics with examples. (4) CO1

Group OR

- 2 c) Explain the concepts of cyberspace and how it affects the interaction between information systems and cyber security. (4) CO1
- 2 d) Explain the process of identifying and mitigating malware threats in an organizational setting. (4) CO1

Question No. 3

- 3 a) If you were responsible for securing a company's IT infrastructure, how would you apply vulnerability assessment to prevent cyber threats? (3) Co2
- 3 b) Differentiate between active and passive vulnerability assessment techniques. (4) Co2

Question No. 4

- 4 a) If you are designing a secure login system, how would you apply multi-factor authentication to strengthen user authentication? (4) Co2
- 4 b) Evaluate real-world biometric authentication challenges and propose effective implementation strategies. (4) Co2

Group OR

- 4 c) Implementing biometric authentication, explain how it improves security compared to passwords and tokens. (4) Co2
- 4 d) Analyze the benefits and challenges of implementing biometric methods in high-security environments. (4) Co2

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