Set 1:

- a. What is TLS, and why is it important in modern internet communication?
- b. Explain the role of encryption in TLS. Mention the types of encryption used during communication.
- c. What is a Man-in-the-Middle (MITM) attack, and how does TLS prevent it?

Set 2:

- a. Describe the TLS handshake process in detail, including the key steps involved.
- b. Discuss the importance of digital certificates and Certificate Authorities (CAs) in ensuring secure TLS communication. Provide examples of their real-world applications.