Name:

Enrolment No:



Semester: VI

UPES

End Semester Examination, May 2024

Course: Safety practices in application Development

Program: BCA Time : 03 hrs.
Course Code: CSBC3018 Max. Marks: 100

Instructions: Provide sufficient explanation for each question.

SECTION A (**5Qx4M=20Marks**) S. No. Marks \mathbf{CO} Q 1 Differentiate between viruses, Trojans, logic bombs, and adware. Explain the characteristics of polymorphic viruses and their impact on 5 CO₁ antivirus detection. Q 2 What is the difference between authentication and authorization in the 5 CO₂ context of database security? What are some legal and regulatory considerations organizations must Q 3 5 CO₃ address when adopting cloud services? What are the different encryption methods used to protect data at rest and Q 4 5 CO₃ in transit? Discuss the SQL injection attacks. How can organizations protect against Q 5 5 **CO4** SQL injection attacks? SECTION B (4Qx10M = 40 Marks)What is database security, and why is it important? Discuss the main Q 6 CO₂ (5+5)threats to database security? Explain the characteristics of public, private, hybrid, and community Q 7 10 CO₃ deployment models. Q8 Outline the key components of effective data retention policies and data deletion procedures. OR 10 CO₃ Define tokenization and its application in cloud security. Discuss the advantages of tokenization over other data protection methods like encryption. Q9 What is a cross-site scripting attack, and how does it exploit web applications? Explain the potential impact of XSS attacks on website CO₄ (5+5)security. **SECTION-C** (2Qx20M=40 Marks)

Q 10	Describe the three primary service models in cloud computing. Differentiate between Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).	(10+10)	CO3
Q 11	Compare and contrast data masking, tokenization, and encryption as methods for protecting data privacy and confidentiality in cloud environments. Evaluate the strengths and weaknesses of each approach in different use cases. OR Discuss Data Loss Prevention (DLP), and why it is important in modern cybersecurity? Describe the main components of a typical DLP system. How does endpoint DLP differ from network DLP, and what are the advantages of each approach?	(10+10)	СОЗ