

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

Nov/Dec 2023

(B.Tech) Program: Honours Scheme :II

Examination: LY Semester: VII

Course Code: HCSC701 and Course Name: Security Information Management

Date of Exam: **13/12/2023**

Duration: 2.5 Hours

Max. Marks: 60

Instructions:

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

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Q 1	Solve any six questions out of eight	12		
i)	Explain IT act 2000 with respect to information security.?	2	CO1	U
ii)	Summarize the advantage of COBIT Framework?	2	CO2	U
iii)	Define and describe Threat and Vulnerability?	2	CO3	U
iv)	Describe Identity access management?	2	CO4	U
v)	Difference between MTBF and MTTR.?	2	CO5	U
vi)	Explain password shadowing?	2	CO6	U
vii)	Differentiate authentication and authorization with example?	2	CO4	U
viii)	Explain the maximum tolerance down time in system disaster recovery?	2	CO5	U
Q.2	Solve any four questions out of six	16		
i)	How can human error impact on Confidentiality, integrity, and availability of information explained with an example?	4	CO1	Ap
ii)	List and Explain information security issues in cloud computing?	4	CO2	U
iii)	Explain the distinction between internal and external threats.	4	CO3	U
iv)	Discuss the flexibility offered by the role based system in adapting organizational changes.	4	CO4	U

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v)	A system has an up- time of 500 hours and a downtime of 50 hours. Calculate the availability of the system?	4	CO5	Ap
vi)	Describe the role of log audit in windows security?	4	CO6	U
Q.3	Solve any two questions out of three?	16		
i)	Enlist OWASP top ten Vulnerabilities and explain any three in detail?	8	CO2	U
ii)	Illustrating the regulatory framework such as IT ACT 2000 and IT IT 2008 influence the design and implementation of administrative and technical measures for information security?	8	CO1	U
iii)	Explain the concept of High Availability (HA) and how it relates to the calculations of Availability, MTBF, and MTTR?	8	CO5	U
Q.4	Solve any two questions out of three.	16		
i)	Explain and Compare the IDS and IPS with various parameters?	8	CO4	U
ii)	Apply the concept of vulnerability to any real time application. Differentiate between threat, vulnerability & risk?	8	CO3	Ap
iii)	Define SQL Injection and explain how it can be used to manipulate a web application's database with example?	8	CO6	Ap
