Code No: 128BA

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year II Semester Examinations, May - 2019
DATABASE SECURITY
(Computer Science and Engineering)

Time: 3 hours
Max. Marks: 75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A
(25 Marks)

1.a)	'Are databases necessary for storing data', Justify.	[2]
b)	What are the various components of an information system?	[3]
c)	What are the various services provided by the Operating system for Database security?	[2]
d)	Explain what is the use of Role in Database security?	[3]
e)	What are the types of attacks?	[2]
f)	Define OLAP.	[3]
g)	Write any two differences between frame based and object oriented systems.	[2]
h)	What is Role lattice?	[3]
i)	What is Insecure Direct Object Reference?	[2]
j)	How the next generation models help the database security?	[3]

PART - B
(50 Marks)

2.a)	Explain Hart son and Hsiao's Model in detail with an example.	
b)	What are the various problems faced in Databases security controls?	[5+5]

OR

3.a)	Illustrate Fernandez's Model for the Distributed databases	
b)	Explain access matrix and access modes with examples.	[5+5]

4.a)	Write about Dion's Model Sea View Model.	
b)	Explain in detail memory protection in database security.	[5+5]

OR

5.a)	Explain with Biba's Model	
b)	Write about Resource Protection in detail.	[5+5]

6.a)	Explain the methodological approach to security	
b)	What is IDES system explains with the example?	[5+5]

OR

7.a)	What are the available DBMS security packages available. write them in detail.	
b)	Define the types of attacks in Database security along with one intrusion detection system	
		[5+5]

8.a) Write about a model for the protection of Frame based systems.
b) Write about SORION Model for the Protection of Object-Oriented Databases. [5+5]

OR

9.a) What is the difference between the SORION Model and Object Oriented system model
b) What are the issues involved in Frame based model and why we moved to Object oriented system model? [5+5]

10.a) Write in detail about Orion Model along with suitable example.
b) Explain how to protect Active databases. [5+5]

OR

11.a) What are the rules for the protection of new generation databases.
b) Explain the Kogans model for the database security. [5+5]

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