Code No: 128BA

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year II Semester Examinations, July - 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)	What is man in the middle attack?	[2]
b)	Give a short note on transaction security.	[3]
c)	Write Tranquility principle.	[2]
d)	What is dial-p gate and root gate.	[3]
e)	What is design pattern and write its usage.	[2]
f)	What is unencrypted index? Write its purpose.	[3]
g)	What is complex object?	[2]
h)	Write key differences between frame based and object oriented databases.	[3]
i)	Define weak authorization base.	[2]
j)	What is active database? Write its features.	[3]

PART - B

(50 Marks)

2.a) What is access matrix model? Explain its major parts and implementation.
  b) Explain Take grant model in detail.   [5+5]

OR

3.a) Explain in detail about database inference.
  b) Give a note on database auditing.   [5+5]

4.a) What is Biba model? Write its features.
  b) Explain the working principle of Biba model for database security.   [5+5]

OR

5.a) Explain memory protection mechanisms.
  b) Explain, how database security is provided using Dion's model.   [5+5]

6.a) Explain design considerations for security software.
  b) Explain different categories of inference.   [5+5]

OR

7.a) Describe different types of attacks for inference control evaluation.
  b) Write a note on ASES system.   [5+5]

8.a) Explain security model for frame based model.
  b) Write a note on the core concepts of object orient database. [5+5]

OR

9.a) Write the security issues in object oriented database.
  b) Explain SORION model for protecting object oriented database. [5+5]

10.a) Explain ORION model architecture with a neat sketch.
  b) Explain model for protection of active databases. [5+5]

OR

11.a) Write a note on Kogan's Model.
  b) Explain about authorization in detail and its types. [5+5]

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