

INTERNAL ASSESSMENT TEST - 3

Dept: CSE	Sem / Div: 5 th A & B	Sub: Database Management system	S Code: 15CS53
Date: 27/11/18	Time: 9:30am-11:00am	Max Marks: 40	Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

QN	Questions	Marks	RBT	CO's
PART A				
1	a Define minimal cover. Write an algorithm for finding a minimal cover F for set of functional dependencies E.	8	L2	CO3
	b Find the minimal cover for the set of FD E: { $B \rightarrow A$, $D \rightarrow A$, $AB \rightarrow D$ }	6	L3	CO3
	c Given relation R with 4 attributes $R=(A,B,C,D)$ and the following Fds. Identify the key and highest normal form. $C \rightarrow D$, $C \rightarrow A$, $B \rightarrow C$	6	L3	CO3
OR				
2	a Consider a relation schama $R(A,B,C,G,H,I)$ and $F=\{ A \rightarrow B, A \rightarrow C, CG \rightarrow H, CG \rightarrow I, B \rightarrow H \}$ Find F^+ .	8	L3	CO3
	b Explain the following i) Inclusion dependencies ii) Domain key Normal Form	6	L2	CO3
	c What you mean by closure of attribute? write an algorithm to find closure of attribute.	6	L2	CO3

PART B

3	a	Why concurrency control is needed?	8	L2	CO4
	b	What are ACID properties? Explain.	6	L2	CO4
	c	Explain transition diagram of a transaction.	6	L2	CO4

OR

4	a	What is a schedule? Explain with example Conflict Serializable schedule.	8	L2	CO4
	b	Write and explain two phase locking (2PL) protocol.	6	L2	CO4
	c	Explain shadow paging recovery technique.	6	L2	CO4

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