ESE- All

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Academic year Semester 2021 – 2025
Program Name/Code: BE-CSE Semester:3rd
Subject Title: Database Management System Subject Code: 21CSH/21ITH-214
Time: 3 Hour Maximum Marks: 60

Instructions: Attempt all questions

Q. No	Statement	CO mapping
	Section A 5 x 2 = 10 marks	
1	List the role of DBA.	CO2
2	Define Boyce Codd Normal Form .	CO3
3	List the properties of transactions.	CO2
4	What is the need for triggers?	CO2
5	What is meant by log-based recovery?	CO1
	Section B 4 x 5 = 20 marks	
6	What is data integrity? Explain the types of integrity constraints.	CO2
7	Consider the universal relation R={ A,B,C,D,E,F,G,H,I} and the set of functional dependencies F={(A,B)->{C], {A}->{D,E},{B}->{F},{F}->{G,H}, {D}->{I,J}. Decompose R into 2NF and 3NF relations.	CO3
8	Explain about immediate update and deferred update recovery techniques.	CO3
9	a) Discuss about two phase locking and commit protocol (3)	CO3
	b) Explain various recovery techniques during transaction in detail. (2)	
	Section C 3 x 10 = 30 marks	
10	Draw an E-R diagram for a small marketing company database, assuming your own data requirements.	CO3
11	Suppose a relational schema R (A B C D E F G H I) and set of functional dependencies F: { AB->C, AD-> GH, BD->EF, A-> I, H-> J } Check out that relation is in 3NF or not? If not decompose it in 3NF.	CO3
12	Is the following schedule S is serializable? If yes, is it conflict serializable or view serializable? R1(C), W1(B), R2(B), W2(A), W1(A), W2(A)	CO3