School of Computing Science and Engineering

Bachelor of Computer Applications
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem II - E1UA204C - Database Management Systems

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Define the objective of DBMS.	K1(2)
2)	Define storage manager? Discuss the components of storage Manager?	K2(4)
3)	Discuss about different types of Data models?	K2(6)
4)	Discuss the main characterstics of database approach and how it is differs from traditional file systems.	K3(9)
5)	Put into practice an overview of relational data models and discuss their key characteristics.	K3(9)
6)	Compare and contrast the Hierarchical Data Model and the Relational Data Model in terms of their overview, characteristics, components, applications, advantages, and disadvantages.	K5(10)
7)	Analyze functional dependency and attribute closure in detail with helhpof suitable Example.	K4(12)
8)	Given a scenario where a university needs to manage student enrollment in courses, what entities would you include in the ER diagram, and what relationships would you establish between them?	K5(15)
9)	Given a relation R(P, Q, R, S, T, U, V, W, X) and Functional Dependency set FD = { PQ → R, QS → TU, PS → VW, and P → X }, determine whether the given R is in which normal form?	K5(15)
10)	Construct The SQL query for following consider table EMP(empno , deptno, ename ,salary, Designation, joiningdate, DOB,city) i) Display employees name and number in an increasing order of salary ii) Display employee name and employee number dept wise iii) Display total salary of all employee iv) Display number of employees dept wise v) Display employee name having experience more than 3 years vi) Display employee name staring with "S" and working in deptno 1002	K6(18)