

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

BCA-II Semester

COURSE CODE (CREDITS):25BC1CI212(4)

MAX. MARKS: 15

COURSE NAME: Database Management Systems.

COURSE INSTRUCTOR: Deepika Bhaik.

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems.

(c) Use of calculators is not allowed.

Q.No	Question	CO	Marks																											
Q1	Explain the 3-schema architecture of Database Management System and its importance in data independence.	CO1	3																											
Q2	Discuss briefly various types of Integrity Constraints.	CO2	3																											
Q3	<p>Consider the following tables:</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr> <th colspan="3">Student</th> </tr> <tr> <th>RollNo</th> <th>Name</th> <th>Address</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Amit</td> <td>Delhi</td> </tr> <tr> <td>2</td> <td>Sunil</td> <td>Mumbai</td> </tr> <tr> <td>3</td> <td>Arun</td> <td>Chandigarh</td> </tr> </tbody> </table> <table border="1" style="display: inline-table;"> <thead> <tr> <th colspan="3">Course</th> </tr> <tr> <th>CourseId</th> <th>Name</th> <th>RNo</th> </tr> </thead> <tbody> <tr> <td>C1</td> <td>DBMS</td> <td>1</td> </tr> <tr> <td>C2</td> <td>Python</td> <td>2</td> </tr> </tbody> </table> <p>Which of the following Insertion, Deletion and Updation will cause integrity constraints violation :</p> <ol style="list-style-type: none"> 1. Insertion of tuple "1, Kumud , Wagnaghat" in Student table. 2. Insertion of tuple "C3, Python, 4" in Course table. 3. Deletion of tuple "2, Sunil, Mumbai" from Student table. 4. Deletion of tuple "C2, Python, 2" from Course table. 5. Updation of RollNo. Of the 2nd tuple in the Student table. 6. Updation of the address attribute of RollNo 3 in Student table. 	Student			RollNo	Name	Address	1	Amit	Delhi	2	Sunil	Mumbai	3	Arun	Chandigarh	Course			CourseId	Name	RNo	C1	DBMS	1	C2	Python	2	CO2	3 (0.5X6)
Student																														
RollNo	Name	Address																												
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CourseId	Name	RNo																												
C1	DBMS	1																												
C2	Python	2																												
Q4	Write a note on different notations used for ER diagrams.	CO2	3																											
Q5	<p>For the following ER diagram, convert it into a set of relational schemas. Clearly specify primary keys and foreign keys for each relation.</p> <pre> erDiagram Customer --o{ Order : Gives Customer { string Name string C_Id string City } Order { string O_No string ItemName string Price } Gives { string Date } </pre>	CO2	3																											