Subject Code: KOE067

PAPER ID-420259

Roll No: | | | | | | | | | | | | | |

BTECH
(SEM VI) THEORY EXAMINATION 2021-22
BASICS OF DATA BASE MANAGEMENT SYSTEM

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2*10 = 20

Q.no	Questions	Marks	CO
(a)	DefineDatabase Management System(DBMS).	2	1
(b)	Briefly discuss about the differences between Database System and File System.	2	1
(c)	Define Tuples.	2	2
(d)	Discuss about the Logical data Independence.	2	2
(e)	Briefly discuss about the need of Structured Query Language (SQL).	2	3
(f)	What do you mean by views and indexes in Structured Query Language (SQL)?	2	3
(g)	What is the use of Serializabilty?	2	4
(h)	Define properties of Transaction.	2	4
(i)	What do you understand by the Database Security?	2	5
(j)	Discuss about the need of Backup and Recovery.	2	5

SECTION B

2. Attempt any *three* of the following: 10*3 = 30

Q.no	Questions	Marks	CO
(a)	Explain in detail about the application of Centralized and Client-Server Architectures.	10	5
(b)	Write short notes on any two of the following: (i) Relational Database Schema. (ii) Integrity constraints. (iii) Entity integrity.	10	2
(c)	What do you mean by Transaction? Explain transaction property with detail using the suitable example.	10	3
(d)	What is Log? How is it maintained? Discuss the features of deferred database modification and immediate database modification in brief.	10	4
(e)	Describe theprinciples of Views of data. Discuss about the levels of abstraction.	10	1

SECTION C

3. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	What is the need of Database Normalization? Discuss about the First and Second Normal form with the help of an example.	10	2
(b)	Explain about the Two phase Locking (2PL)? Describe with the help of example.	10	5

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4. Attempt any *one* part of the following: 10 *1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the concept ofData Modeling using the Entity Relationship (ER) Model.	10	1
(b)	Discuss about theuse of insert, update and delete operations in Structured Query Language (SQL).	10	3

5. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss in detail about the basic principle of Referential integrity and domain constraints in Relational Database.	10	4
(b)	Explain in detail about any two of the following. (i) Data Mining. (ii) Data Warehousing. (ii) Data Visualization.	10	5

6. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe the concept of Functional dependencies. What do you understand by Keys constraints and Domain constraints?	10	2
(b)	Write down about any two of the following. (i) Stored procedures (ii) Stored function (iii) Database triggers	10	3

7. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Briefly discuss any two of thefollowing through an example. (i) Super key (ii) Candidate key (iii) Primary key	10	1
(b)	Write down about the concept of Recovery with Concurrent Transaction.	10	4