

B.C.A. SEM-II (CBCS 2018 Course) : SUMMER - 2019

SUBJECT: DBMS-I

Day: Tuesday
Date: 30/04/2019

S-2019-2054

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B.:

- 1) Q 4 from Section I is COMPULSORY.
 - 2) Answer ANY TWO questions from Q 1, 2, 3 in Section I.
 - 3) Answer ANY TWO questions from Q 5, 6, 7 in Section II.
 - 4) All question CARRY EQUAL marks.
 - 5) Answers to Both the sections to be written in SAME answer books.
 - 6) Draw a labeled diagram WHEREVER necessary.
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SECTION - I

Q.1) Answer the following: (6 Marks X 2 = 12)

- a) Discuss different database users.
- b) What are attributes of an entity? Explain its types.

Q.2) Answer the following: (6 Marks X 2 = 12)

- a) What do you understand by lossy and lossless decomposition?
- b) Elaborate different physical storage media used in DBMS.

Q.3) Explain the following: (6 Marks X 2 = 12)

- a) Is multiprogramming different from multiprocessing? Explain.
- b) Explain the shadow paging technique with example.

Q.4) Write short notes on the following: Attempt ANY THREE (4 Marks X 3 = 12)

- a) Data abstraction
- b) Strong entity
- c) Responsibilities of DBA
- d) Data Dictionary
- e) Deadlock

SECTION - II

Q.5) Answer the following: (6 Marks X 2 = 12)

- a) Difference between database oriented approach and file oriented approach.
- b) Explain the difference between terms serial schedule and serializable schedule. Give relevant example.

Q.6) Answer the following: (6 Marks X 2 = 12)

- a) What do you understand by normalization? Discuss data normalization process.
- b) Discuss the ACID properties of a transaction. Give relevant example.

Q.7) Explain the following: (6 Marks X 2 = 12)

- a) What is two phase locking? How does it work?
- b) Construct an E-R diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it, zero to any numbers of recorded accidents. State any assumptions you make.
