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Total No. of Pages : 02

Total No. of Questions : 09

BMCI (2014 & Onwards) (Sem.-2)
DATA BASE MANAGEMENT SYSTEM
Subject Code : BMCI-204
M.Code : 72466

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly :
 - (a) What is Physical Independence concept?
 - (b) What are the major responsibilities of a DBA?
 - (c) What are Weak Entity Sets? Give example.
 - (d) What is Integrity Constraint?
 - (e) What is a Query?
 - (f) What is the need for Normalization?
 - (g) What do you mean by Database Recovery?
 - (h) What is the need to join tables?
 - (i) What is Relational Model?
 - (j) Give an example of functional dependency?

SECTION-B

2. Explain the three level architecture of the Database.
3. What is Entity Relationship Model? Explain the major constructs of ER model with examples.
4. What do you mean by the Data Model? Explain the Hierarchical model in detail.
5. Explain the concept of Functional dependency in detail. How is it useful in normalization?
What do you mean by concurrency? Explain various concurrency control methods.
- 6.

SECTION-C

7. What is meant by Normalization? Why is the database Normalized? Explain different techniques. Differentiate between 3NF and BCNF
8. Consider the following 3 tables :

PAINTER (Ptr_Num, Ptr_Firstname, Ptr_Lastname, Ptr Initial, Ptr_Areacode, Ptr_Phone)

GALLERY (Gal_Num, Gal_Owner, Gal_Areacode, Gal_Phone, Gal_Rate)

PAINTING (Pntg_Num, Pntg_Title, Pntg_Price, Ptr_Num, Gal_Num)

Write the SQL Plus queries for the following :

a) Find all painters who have painted in GAL_NUM=4.

b) Find all paintings of Gallery whose rate is > 1000

c) Find the Gallery in which painter 'Ramesh' has displayed his paintings.

d) Find the number of paintings displayed in Gallery owned by 'Shyam'.
9. What is E-R modelling? Write down the advantages and disadvantages of the E-R model. Explain the functioning of various components of E-R model.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.