B.E DEEGREE EXMINATIONS: APRIL/MAY 2012

Sixth Semester

COMPUTER SCIENCE & ENGINEERING

CSE120: Multimedia Databases

Time: Three Hours **Maximum Marks: 100**

Answer ALL Questions:-

PART A (10 x 1 = 10 Marks)

1. _____ allows us to identify uniquely an entity in the entity set in the entity set.

 a) Primary Key b) Foreign Key c) Candidate key d) Super key

2. The overall design of the data base is called_____

 a) physical schema b) logical schema c) data base schema d)conceptual schema

3. _____splits the relation by assuming each tuple of r to one or more fragments

 a) Replication b) vertical fragmentation c) Horizontal fragmentation d) Duplication

4. Fifth normal form is also known as _____normal form.

 a) sub-join b) project-join c) Equi-join d) None of the above

5. Type specifies _____ for data items.

 a) format b) values c) attributes d) none of the above

6. Point quad tree is used to represent point data in ___ spaces

 a) 2D b) 3D c) 1D d) 4D

7. An _____ operator may cull out a shape from an existing object

 a) minus b) intersection c) excision d) OR

8. The basic idea behind _____ is that similar documents have similar word frequencies.

 a) latent semantic indexing b) Similar semantic indexing

 c) latent symbol indexing d) Similar symbol indexing

9. When querying a video library, which is not a primary type of query?

 a) segment retrievals b) symbol retrievals c) activity retrievals d) property based retrievals

10. Leitmotif is a _____.

 a) text construct b) Image construct c) musical construct d) None of the above

PART B (10 x 2 = 20 Marks)

11. Compare logical data independence and physical data independence.

12. Define Boyce–Codd normal norm. How does it differ from 3NF?

13. Define single valued and multivalued attributes.

15. What is meant by object oriented data model?

16. What is the use of R Tree?

17. What do you mean by Latent Semantic Indexing?

18. What is a stop list?

19. Compare the requirements of temporal and non temporal element DB?

20. State any two audio data indexing methods

PART C (5 x 14 = 70 Marks)

21. a) Explain the various relational algebra operations.

(OR)

   b) (i) What is a functional dependency? Explain minimal set of functional dependencies? (7)

   (ii) What do you mean by Normalization? Explain first three normal forms. (7)

22. a) What do you mean by Multivalued dependency? Explain the fourth normal form with an example.

(OR)

   b) What is Join Dependency? Explain the fifth normal form with an example.

23. a) (i) Explain the concept of object definition and query languages in Object Oriented Data Base Management Systems. (7)

   (ii) Discuss about Object Relational Systems in OODBMS. (7)

(OR)

   b) Explain K-D Tree with a neat diagram.

24. a) How an image DB is represented with RTrees? Explain it.

(OR)

   b) Explain in detail about TV Trees.

25. a) Explain the process of Querying Content of Video Libraries.

(OR)

   b) Explain the general model of audio data and indexing of it.

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