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BTECH
(SEM V) THEORY EXAMINATION 2023-24
INTELLIGENT DATABASE SYSTEM

TIME: 3 HRS

M.MARKS: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

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

Q no.	Question	Marks
a.	Highlight two general characteristics of IDBSs and briefly elaborate on their significance in the context of database systems.	2
b.	What is the informal definition of the domain of Intelligent Database Systems (IDBS)? Provide a concise overview.	2
c.	Describe the process of installing LAMP (Linux, Apache, MySQL, PHP) in a nutshell, emphasizing the key steps?	2
d.	Explain the significance of configuring and setting up the connection between the back end and front end in a web development environment in just two points.	2
e.	Summarize, in two points, the guidelines for effectively using Intelligent Database Systems.	2
f.	Provide a concise definition of the domain of Intelligent Database Systems (IDBS) in two points.	2
g.	Enumerate two general characteristics of IDBSs and briefly outline their significance.	2
h.	Describe Why is it crucial to establish clear objectives when implementing and utilizing Intelligent Database Systems.	2
i.	Briefly outline the main components of the LAMP stack?	2
j.	Discuss the importance of secure connections and error handling in the setup.	2

SECTION B

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

a.	Using SQL, outline in two phases (DDL, DML, and DCL), the creation of a sample database for Language.	10
b.	Describe, in points, the steps involved in creating sample Java/PHP pages with database access.	10
c.	Summarize the significance of the ODMG standard in the context of object-oriented database systems.	10
d.	Explain, the features and challenges associated with active database systems, including their architectures.	10
e.	Explain the fundamental concepts of nested and semantic data models, highlighting their significance in database design.	10

SECTION C

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

a.	Explain the process of working with basic commands in DATALOG.	10
b.	Summarize, the characteristics of knowledge-based systems, emphasizing their importance in the AI context.	10



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

a.	Provide a point overview of deductive database systems, focusing on their basic concepts.	10
b.	Outline, in points, the conclusions drawn from the study of deductive databases in the context of knowledge-based systems.	10

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

a.	Explain, the significance of lexical approaches in the construction of large Knowledge Bases (KBs) in advanced knowledge-based systems.	10
b.	Discuss the other projects based on a 'conceptual representation' approach within the realm of advanced knowledge-based systems.	10

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

a.	Provide the overview of the CYC project, emphasizing its contributions to advanced knowledge-based systems.	10
b.	Explain the characteristics of a language for implementing very large 'integral approach' systems, specifically referring to TELOS in the context of advanced knowledge-based systems.	10

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

a.	Describe the implementation process of temporal databases.	10
b.	Explain the main issues involved in designing a multi-agent system and highlight any open problems in the field.	10