

Department of Information Technology Engineering

Continuous Internal Evaluation - II

Sem: I Subject: Advanced Database System Year: 2022-23 Class: B Tech

Time:11.15 To 12.15 pm Max Marks: 30 Date: 03/12/2022

| Q 1 | Solve following MCQs (1 Mark Each) | СО |
|------|---|-----|
| i. | An extent is which of the following? | CO1 |
| 1. | | |
| | a) A keyword that indicates that the subclass inherits from a superclass | |
| | b) A keyword that indicates that the superclass inherits from a subclass | |
| | c) The set of all instances of a class within a database | |
| | d) Only one instance of a class within a database | |
| ii. | Which of the following is true concerning the following statement: class Manager extends Employee | CO2 |
| | a) Manager is a concrete class and a superclass. | |
| | b) Manager is a concrete class and a subclass. | |
| | c) Manager is an abstract class and a superclass. | |
| | d) Manager is an abstract class and a subclass. | |
| iii. | Which of the following is the property of transaction that protects data from | CO1 |
| | system failure? | |
| | a) Atomicity | |
| | b) Isolation | |
| | c) Consistency | |
| | d) Durability | |
| iv. | Which of the following can replace the below query? | CO2 |
| | SELECT name, course_id | |
| | FROM instructor, teaches | |
| | WHERE instructor_ID= teaches_ID; | |
| | a) Select name, course_id from teaches, instructor where | |
| | instructor_id=course_id; | |
| | b) Select name, course_id from instructor; | |
| | c) Select course_id from instructor join teaches; | |
| | d) Select name, course_id from instructor natural join teaches | |
| v. | The database system catalog stores what kind of information? | CO1 |
| | a) Number of blocks | |
| | b) Number of tuples | |
| | c) Size of tuples mentioned | |
| | | |
| | d) All of the above | |
| vi. | The local variables that hold write operations are copied to the database | CO2 |
| vi. | The local variables that hold write operations are copied to the database work in which phase? | CO2 |
| vi. | The local variables that hold write operations are copied to the database | CO2 |
| vi. | The local variables that hold write operations are copied to the database work in which phase? | CO2 |
| vi. | The local variables that hold write operations are copied to the database work in which phase? a) Read Phase | CO2 |

| Q 2 | Attempt any 3 (8 Marks Each) | | | |
|-----|--|---|-----|--|
| | i. | i. Explain structured data types with example. | | |
| | ii. Explain Storage and Access methods of OOD. | | CO1 | |
| | iii. | Explain technique for parallel query evaluation and query optimization. | CO1 | |
| | iv. | Explain distributed DBMS and architecture of it. | CO1 | |





Department of Information Technology Continuous Internal Evaluation - II

Class: BTech Div:___ Year: 2022-23 Sem: I Subject: Distributed Computing

Date: 02/12/2022 Time: 11.15 to 12.15 PM Max Marks: 30

| Q1 | Solve following MCQs (1 Mark Each) | СО |
|------|--|----|
| i. | In RMI, the objects are passed by. | 1 |
| | a) value | |
| | b) reference | |
| | c) value and reference | |
| | d) object | |
| ii. | The local operating system on the server machine passes the incoming packets to the | 1 |
| | a) server stub | |
| | b) client stub | |
| | c) client operating system | |
| | d) binding agent | |
| iii. | Internet provides for remote login. a) telnet b) http c) ftp d) rpc | 1 |
| iv. | provides programmers a familiar programming model by extending the local procedure call to a distributed environment | 2 |
| | a). distributed environment | |
| | b). permanent procedure call | |
| | c). process and file | |
| | d). remote procedure call | |
| v | The difference between logical and physical clocks? | 2 |
| | a) Logical clocks measure the time of day and Physical clocks are used to mark relationships among events in a distributed system. | |
| | b) Both are the same | |
| | c) Physical clocks measure the time of day and Logical clocks are used to mark relationships among events in a distributed system. | |
| | d)Physical clock and logical clock do not work in distributed system | |

| Vi | is an object acting as a gateway for the client side a) skeleton b) stub c) remote d) server | | |
|----|--|--|---|
| Q2 | Attempt any 3 (8 Marks Each) | | |
| | i. | Explain Synchronization with its communication diagram | 1 |
| | ii. | What is Buffering? & what are the different types of Buffering? | 2 |
| | iii. | What are the different failures & How to failure handling in client server communication | 2 |
| | iv. | List and explain features of a good scheduling algorithm. | 2 |



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Department of Information Technology Engineering Continuous Internal Evaluation - II

Class: B Tech Div:_-- Year: 2022-23 Sem: I Subject: Data Science

Date: 3/12/2022 Time: 2.15 To 3. 15 PM Max Marks: 30

| | Solve following MCQs (1 Mark Each) | СО |
|------|---|----|
| Q1 | | |
| i. | What is data visualization? | 2 |
| | a) It is the graphical representation of information and data | |
| | b) It is the numerical representation of information and data | |
| | c) It is the character representation of information and data | |
| | d) None of the above | |
| ii. | What are the common types of data visualization? | 3 |
| | a) Charts | |
| | b) Tables | |
| | c) Infographics | |
| | d) All of the above | |
| iii. | Which of the intricate techniques is not used for data visualization? | 3 |
| | a) Heat Maps | |
| | b) Fever Maps | |
| | c) Bullet Graphs | |
| | d) Bubble Clouds | |
| iv. | A useful chart for displaying multiple variables is the | 2 |
| | a) scatter chart matrix | |
| | b) scatter chart | |
| | c) two-dimensional graph | |
| | d) stacked column and bar chart | |
| v. | A system that merges maps and statistics to present data collected over different | 2 |
| | geographies | |
| | a) The heat map | |
| | b) A geographical map | |
| | c) Geographic information system | |
| | d) None of the above | |
| vi. | The most popular data visualization library in python is | 2 |
| | a) matinfolib | |
| | b) matplotlib | |

| | c) pip d) matpiplib | | | |
|----|--|---|--|--|
| | Attempt any 3 (8 Marks Each) | | | |
| Q2 | | | | |
| | i. What is data visualization? Explain how to plot line/multiline graph with color coding and legends? | 1 | | |
| | ii. Explain Scatter plot with example? | 1 | | |
| | iii. How to Plot line, multi line, dotted line Matplotlib? | 1 | | |
| | iv. Explain Pie chart with example? | 1 | | |



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Department of Information Technology Engineering Continuous Internal Evaluation - II

Class: B.Tech Year: 2022-23 Sem: I Subject: Mobile Computing

Date: 02/12/2022 Time: 2.15 pm to 3.15 pm Max Marks: 30

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|------|---|----|
| Q1 | Solve following MCQs (1 Mark Each) | СО |
| i. | Which of the following usually stores all user-related data that is also relevant to GSM mobile systems? | 3 |
| | a. VLR b. HMR c. CMR d. SIM | |
| ii. | In which one of the following codes with specific characteristics can be applied to the transmission? | 3 |
| | a. CDMA b. GPRS c. GSM d. All of the above | |
| iii. | Which of the following uses wireless as the mode of communication for transferring or exchanging data between various mobiles over a short-range? | 2 |
| | a. Ad hoc computing b. Mobile computing | |
| | c. Bluetooth technology d. None of the above | |
| iv. | In which one of the following, the slow and fast hopping is used? | 3 |
| | a. GSM b. GPRS c. FHSS d. None of the above | |
| v. | In the Cellular Network, on which of the following, the cell's shape depends? | 4 |
| | a. Political conditions b. Social Conditions | |
| | c. Environment Condition d. None of the above | |
| vi. | Which one of the following enables us to use the entire bandwidth simultaneously? | 3 |
| | a.TDMA b. CDMA c. FDMA d.All of the above | |
| Q2 | Attempt any 3 (8 Marks Each) | |
| | i. Draw and explain GSM architecture and explain following entities in GSM | 2 |
| | network. | |
| | 1. HLR 2. VLR 3. EIR 4. GMSC | |
| | ii. Write short note on: | 3 |
| | 1. FHSS 2. DSSS | |
| | iii. With diagram explain Infrastructure Network. | 3 |
| | iv. Which are the advantages and disadvantages of Infra-red and Radio Transmission. | 3 |