SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK

Subject with Code : MAD(9F00501) **Course & Branch**: MCA

Year & Sem: III-MCA & I-Sem **Regulation:** R09

UNIT –I

J2ME overview and architecture

1. a) What is the difference between J2ME and J2SE. 5M
   b) Draw and explain J2ME architecture. 5M
2. a) Outline the various challenges faced by the developer in developing applications for mobile and small computing devices. 5M
   b) With a neat sketch explain the layers of J2ME architecture. 5M
3. a) Briefly discuss the evolution of J2ME in the world of java. 5M
   b) Give specific reasons to justify the following statement: 5M
   "Mobile application developers have to rethink the way they build computer systems in order to meet the expectations of consumers of mobile and small computing devices".
4. a) Write about java virtual machine and evolution of J2EE. 3M
   b) Explain the working nature of cellular telephone networks with neat sketch. 4M
   c) Define MIDlets. Explain about MIDlets on the internet. 3M
5. Explain the installation and running of mobile application using WTK. 5M
6. Explain the wireless technology and messaging in detail. 5M
7. Explain the J2ME architecture and the attributes of manifest file. 10M
8. Explain in detail about 'Hello world' application using wireless toolkit. 10M
9. What is midlet suite? Explain the MIDlet lifecycle in detail. 10M
10. Explain the micro wave technology and mobile radio networks in detail. 10M

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UNIT –II

J2ME best practices and patterns

1. a) Explain Item class with example. 5M
   b) Write about Display class. 5M
2. a) Write an MIDP application to perform arithmetic operations when you select that particular checkbox and display the results on the screen 5M
   b) What are the best ways to solve complex J2ME programming problems. 5M
3. a) Discuss the minimal hardware and software requirements to run a J2ME application on a small computing device. 5M
   b) What do you mean by a MIDlet? Describe the various attributes of a manifest file. 5M
4. a) Write the source code to illustrate a typical hello world MIDlet. 5M
   b) Write a short notes on: 5M
      i) Mobile radio networks ii) personal digital assistants
5. a) Explain how to manage application's use of network connection. 5M
   b) Define display class. Explain the steps required to determine the color attribute of a device. 5M
6. Explain the command class in detail. 5M
7. Explain the best practices to create best mobile application. 10M
8. Explain the J2ME user interfaces in detail. 10M
9. Explain the item class and display class in detail 10M
10. Explain the process of handling the exceptions in J2ME with example. 10M

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UNIT –III

High level display screens

1. Write short notes on: 10M
   i) Alert class ii) Textbox class iii) Ticker class
2. a) Explain the form class with example. 5M
   b) Create an MIDP application to display an interactive gauge on a form. 5M
3. a) How do you design your J2ME application to manage memory efficiently? 5M
   b) Write short notes on Item class, Palm OS emulator, Command class. 5M
4. a) Discuss any two best practices followed by the J2ME developers to solve complex J2ME programming problems. 5M
   b) Explain in brief about the different kinds of J2ME user interfaces. 5M
5. a) What is a alert class? Explain various types with suitable examples. 5M
   b) Write about gauge class. Explain the method of creating and manipulating an instance of gauge class. 5M
6. Create an midlet application to display the value of the selected radio button. 5M
7. Explain the choicegroup, date class of high level display. 5M
8. Explain the step by step process of creating addition of two numbers application. 10M
9. Explain the form class in detail. 10M
10. Explain the ticker class, gauge class in detail. 10M

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UNIT –IV

Low level display canvas

1. a) Discuss working with game action in detail. 5M
   b) Explain method of clipping region. 5M
2. a) What is the use of game actions? Explain with examples. 5M
   b) Create an MIDP application to draw filled rounded rectangle. 5M
3. What are the steps required to create an alert dialog box. 10M
4. a) Illustrate the inheritance structure of the screen class using display class hierarchy. 5M
   b) List all the steps required to create an instance of the form class. 5M
5. a) Explain briefly about: 5M
   i) paint() ii) repaint() iii) show notify iv) hide notify
   b) What is an arc? Explain the method of drawing an arc. 5M
6. Explain the user interactions in canvas class in detail. 10M
7. Explain the key code and game code of canvas. 10M
8. Explain about the clipping regions of canvas. 10M
9. Describe the two techniques that are used to receive user input into your low-level J2ME application. 10M
10. Create an application to draw a barchart on the canvas. 10M

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UNIT –V

Record Management System

1. a) Explain record storage. 5M
   b) Explain how to read and write records in RMS with an example. 5M
2. a) Create an MIDP application to perform searching records 5M
   b) Explain the record enumeration. 5M
3. a) How do you sort single data type records in a record enumeration. 5M
   b) Explain in brief about the record listener interface. 5M
4. a) What are the various steps required to create, close, and remove a record store. 5M
   b) Which are the two techniques used to retrieve a record from the record enumeration. 5M
5. a) Discuss the steps required to read a record of simple and mixed data types into record enumeration. 5M
   b) Describe the steps involved in searching a record within the data base. 5M
6. Explain in detail about the RMS. 10M
7. How will you access the required data from the record store? Explain. 10M
8. How will you access simple data typed values into the record store. 10M
9. Explain the process of sorting the records of recordstore. 10M
10. How the data is stored in the mobile? Explain. 10M

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UNIT –VI

JDBC objects

1. a) What are the types of JDBC drivers? Explain. 5M
   b) Explain about database connection in JDBC. 5M
2. a) What are the types of JDBC drivers? Explain. 5M
   b) Explain the resultset class. 5M
3. a) Explain the following statement object. 5M
   i) Prepared statement ii) Callable statement
   b) How do you insert and delete a row in the resultset? Explain with an example. 5M
4. Give an overview of the JDBC process used by J2ME apps for interacting with DBMS. 10M
5. a) What is JDBC? Explain four types of JDBC drivers. 5M
   b) Explain briefly about: 5M
   i) Savepoint ii) Batch statements iii) Auto generated keys
6. Explain the process of connecting the database in detail. 10M
7. Discuss the different statement objects in detail. 10M
8. Explain the JDBC drivers in detail. 10M
9. Explain the Batch statement, Simple statement in detail. 10M
10. Explain the transaction processing and exception handling of JDBC in detail. 10M

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UNIT –VII

JDBC and embedded SQL

1. a) Write short notes on views. 5M
   b) Briefly explain the following: 5M
   i) Selecting data from a table ii) Updating tables
2. Explain the tables in terms creating, inserting and retrieving data. 10M
3. Explain the model programs in detail. 10M
4. Explain the DML commands of table. 10M
5. a) Explain the method of creating a secondary index and clustering nodes. 5M
   b) Explain the following: 5M
   i) Clauses ii) Operators iii) Expression
6. Explain the VIEWS in detail. 10M
7. How will you join tables? Explain. 10M
8. Explain the usage of group by and ordering of data of tables. 10M
9. Explain the creation of queries and sub- queries in detail. 10M
10. Discuss the calculation of data of tables in detail. 10M

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UNIT –VIII

Generic connection framework

1. a) Briefly explain communication management using HTTP commands. 5M
   b) Write short notes on session management. 5M
2. Explain the communication management using HTTP commands. 10M
3. a) Illustrate with an example, how to update multiple columns of a table. 5M
   b) Describe the process of joining two tables with an example. 5M
4. a) Illustrate with an example, how to create a clustered index and drop an index. 5M
   b) What are the advantages of using VIEWS? State the set of rules that govern how you should use the VIEWS in your application? 5M
5. a) Explain about connections and streams with suitable example for each. 5M
   b) Explain how to use an HTTP connection to communicate with a server. 5M
6. Explain the session management techniques. 10M
7. How will you manage communications using HTTP commands. 10M
8. Explain the URL rewriting, HTTP session techniques in detail. 10M
9. Discuss the connection steps of generic connection framework in detail. 10M
10. How will you transmit a process to background process. Explain why you make a process as background process? 10M

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