

**Asha M. Tarsadia Institute of Computer Science and Technology**  
**Uka Tarsadia University**

B. Tech. Computer Science and Engineering (CSE)/ B. Tech. CE (Software Engineering)/  
 B. Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
 Learning)/ B. Tech Computer Engineering/ B. Tech Information Technology

**Internal Examination - 1**

**(IT4018) - Mobile Application Development**

**Maximum Marks: 30**

**Date: 08/09/2023**  
**Timing: 09:00 AM to 10.30 AM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |   |           |
|------------|---|-----------|
| <b>Q-1</b> | <b>Answer the following in brief. (Any 5)</b>   | <b>10</b> |
|            | 1 What is Android SDK?<br>2 Define: Toast message with syntax.<br>3 What is View and ViewGroup?<br>4 How to use Spinner in android application.<br>5 Explain Checkbox in Android with example.<br>6 Differentiate between JVM and DVM   |           |
| <b>Q-2</b> | <b>Do as directed. (Any 4)</b>  | <b>20</b> |
|            | 1 Describe the Android architecture with neat diagram in detail.<br>2 What is an Activity? Explain the activity life cycle with all events in detail.<br>3 Enlist and define types of Menus in android. Explain option Menu in Detail.<br>4 List various layouts available in Android. Explain any one out of that.<br>5 What is Intent? Explain types of Intent in Android with example. |           |

# **Asha M. Tarsadia Institute of Computer Science and Technology**

## **Uka Tarsadia University**

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE (Software Engineering)/  
B.Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
Learning)/B. Tech Computer Engineering/B. Tech Information Technology

### **Internal Examination – 1**

#### **Subject Name: Web Development**

**Maximum Marks: 30**

**Date: 8/9/2023**

**Timing: 02:00 PM to 03.30 PM**

#### **General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

**Q-1**      **Answer the following in brief. (Any 5)**      **10**

- 1 Define MVC architecture.
- 2 What are the data types in PHP?
- 3 What is the server side scripting and client side scripting in PHP?
- 4 State the difference between local and global variable in PHP.
- 5 Show the use of browser control in PHP.
- 6 Write a different between GET and POST method in PHP.

**Q-2**      **Do as directed. (Any 4)**      **20**

- 1 Define type of array in PHP. Explain it with example.
- 2 Describe different types of array functions and explain it with example.
- 3 Describe following string functions each with an example:
  - i. Str\_replace()
  - ii. stripslashes()
  - iii. explode()
  - iv. strip\_tags()
  - v. strpos()
- 4 Write a PHP script to find out the given number is Armstrong number or not.
- 5 What are the session and cookie in PHP? Write difference between them in detail.

\*\*\*\*\*Self-belief and hard work will always earn you success \*\*\*\*\*

**Asha M. Tarsadia Institute of Computer Science and Technology  
Uka Tarsadia University**

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE (Software Engineering)/  
B.Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
Learning)/B. Tech Computer Engineering/B.Tech Information Technology

**Internal Examination - 1**

**(IT4016) - Programming with JAVA**

**Maximum Marks: 30**

**Date: 09/09/2023**

**Timing: 09:00 AM to 10.30AM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |   |           |
|------------|---|-----------|
| <b>Q-1</b> | <b>Answer the following in brief. (Any 5)</b>                     | <b>10</b> |
| 1          | Enlist the features of Java. Explain any two.                     |           |
| 2          | Explain each keyword of “public static void main(String args[])”. |           |
| 3          | Create a two dimensional array. Instantiate and Initialize it.    |           |
| 4          | What is wrapper class? What is the use of wrapper class in Java?  |           |
| 5          | State the difference between class and object.                    |           |
| 6          | Show the uses of “this” keyword in Java?                          |           |

  

|            |   |           |
|------------|---|-----------|
| <b>Q-2</b> | <b>Do as directed. (Any 4)</b>  | <b>20</b> |
| 1          | Describe type conversion and casting with example.  |           |
| 2          | Explain command line argument. Write a program which takes five numbers as command line argument from user, store them in one dimensional array and display count of prime numbers. |           |
| 3          | Describe Passing and returning object form method in detail with example.   |           |
| 4          | What is method overloading? Explain in detail with suitable example.  |           |
| 5          | Describe String and StringBuffer class with example. Enlist all operations on string.   |           |

**Uka Tarsadia University**

**Asha M. Tarsadia Institute of Computer  
Science and Technology**

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE  
(Software Engineering)/ B.Tech. CSE (Cloud Computing, Cyber  
security, Artificial Intelligence and Machine Learning)/B. Tech  
Computer Engineering/B. Tech Information Technology)

**Unit Test – 1**

**Subject Name: Database Management System**

**Maximum Marks: 30**

**Date: 09/09/2023**

**Timing: 02:00 PM to 03.30 PM**

**Q-1 Answer the following in brief. (Any 5)**

- 1 Enlist and explain the advantages of DBMS over traditional file system.
- 2 Define Role and View.
- 3 Explain the difference between generalization and specialization.
- 4 Enlist the symbols used in ER diagram.
- 5 List and explain different types of database users.
- 6 What are the roles of DBA?

**20**

**Q-2 Do as directed. (Any 4)**

- 1 Explain DBMS System Architecture.
- 2 What is Key? Explain different types of keys in detail.
- 3 List the relational algebra operators. Discuss algebra operator with suitable example.
- 4 Enlist the databases languages and explain them with example.
- 5 Consider the following relations and write a relational algebra:

EMP (empno, ename, jobtitle, managerno, hiredate, sal, commission, deptno)

DEPT (deptno, dname, location)

- I. Find the Employees working in the department number 10, 20, 30 only.
- II. Find the Employees who are working in Smith's department.
- III. Find the Employees who get salary more than Allen's salary.
- IV. Display employees who are getting maximum salary in each department.
- V. Find list of employees whose hire date is on or before 1-April-18.

# **Asha M. Tarsadia Institute of Computer Science and Technology**

## **Uka Tarsadia University**

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE (Software Engineering)/

B.Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine Learning)/B. Tech Computer Engineering/B.Tech Information Technology

### **Internal Examination - 1**

#### **(CE4013) - Software Engineering**

**Maximum Marks: 30**

**Date: 11/09/2023**

**Timing: 09:00 AM to 10.30 AM**

#### **General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

**Q-1              Answer the following in detail. (Any 2)              12**

- 1 Explain the process of extreme programming with a neat sketch.
- 2 State and describe any six Agile principles.
- 3 Explain Incremental and Prototype model each with an example.

**Q-2              Answer the following in detail. (Any 3)              18**

- 1 Describe requirement analysis. Discuss requirement analysis with its significance.
- 2 Explain elaboration and negotiation in terms of requirement gathering taking an appropriate example.
- 3 Discuss concepts of data modeling.
- 4 Enlist and explain any three principles that guide the software engineering practice.

**Asha M. Tarsadia Institute of Computer Science and Technology**  
**Uka Tarsadia University**

B. Tech. Computer Science and Engineering (CSE)/ B. Tech. CE (Software Engineering)/  
B. Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
Learning)/ B. Tech Computer Engineering/ B. Tech Information Technology

**Internal Examination - 2**

**(IT4018) – Mobile Application Development**

**Maximum Marks: 30**

**Date: 18/12/2023**  
**Timing: 09:00 AM to 10.30 AM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |   |           |
|------------|---|-----------|
| <b>Q-1</b> | <b>Answer the following in brief. (Any 5)</b>   | <b>10</b> |
|            | 1 Explain the use of Shared Preferences.<br>2 How many ways data stored in Android.<br>3 Explain the use of Broadcast Receiver in Android.<br>4 Describe the task of Notification Manager in Android.<br>5 What is the difference between geocoding and reverse geocoding?<br>6 What is JSON in Android?  |           |
| <b>Q-2</b> | <b>Do as directed. (Any 4)</b>  | <b>20</b> |
|            | 1 Write a code to insert Employee details (eid, ename, eaddress, edesignation,salary,etype) in SQLite database.<br>2 Explain the concept of user preferences in Android app development. How would you save and load user preferences.<br>3 Explain life cycle of Android services.<br>4 Explain geocoding in detail.<br>5 Explain androidX library with example. |           |

# Asha M. Tarsadia Institute of Computer Science and Technology

## Uka Tarsadia University

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE (Software Engineering)/  
 B.Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
 Learning)/B. Tech Computer Engineering/B. Tech Information Technology

### Internal Examination – 2

#### **Subject Name: Web Development**

**Maximum Marks: 30**

**Date: 18/12/2023**  
**Timing: 02:00 PM to 03.30 PM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |   |           |
|------------|---|-----------|
| <b>Q-1</b> | <b>Answer the following in brief. (Any 5)</b>   | <b>10</b> |
|            | 1 State the difference between abstract class and interface.                            |           |
|            | 2 Define Static class. Demonstrate it using a PHP script.                               |           |
|            | 3 Differentiate public and private access modifiers of PHP using a sample code snippet. |           |
|            | 4 Define destructor. Write a PHP script to demonstrate the usage of the destructor.     |           |
|            | 5 State different ways of performing file read operation.                               |           |
|            | 6 Define the word "Ajax".   |           |
| <b>Q-2</b> | <b>Do as directed. (Any 4)</b>  | <b>20</b> |
|            | 1 Write a PHP script to set and read cookies. Explain the functions used in it.         |           |
|            | 2 Explain any six MySQL functions supported by PHP.                                     |           |
|            | 3 Write a PHP script to create a new table using mysql functions.                       |           |
|            | 4 State advantages and disadvantages of Ajax.   |           |
|            | 5 Explain passing data to the server with Request method using Ajax.                    |           |

\*\*\*\*\*Self-belief and hard work will always earn you success \*\*\*\*\*

**Asha M. Tarsadia Institute of Computer Science and Technology**  
**Uka Tarsadia University**

- B. Tech. Computer Science and Engineering (CSE)/ B. Tech. CE (Software Engineering)/  
B. Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine  
Learning)/ B. Tech Computer Engineering/ B. Tech Information Technology

**Internal Examination - 2**

**(IT4016) - Programming with Java**

**Maximum Marks: 30**

**Date: 19/12/2023**

**Timing: 09:00 AM to 10.30 AM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |  |           |
|------------|--|-----------|
| <b>Q-1</b> | <b>Answer the following in brief. (Any 5)</b>  | <b>10</b> |
| 1          | Explain super and subclass.  |           |
| 2          | Describe interface and package using code snippet..  |           |
| 3          | Show the use of FileReader class with an example.  |           |
| 4          | Draw the life cycle of an Applet and enlist all its methods.   |           |
| 5          | Differentiate byte streams and character streams in Java.  |           |
| 6          | Describe ByteArrayInputStream with an example.   |           |
| <b>Q-2</b> | <b>Do as directed. (Any 4)</b>   | <b>20</b> |
| 1          | Discuss abstract class with an example.  |           |
| 2          | What is method overriding? Compare method overriding and method overloading.   |           |
| 3          | Write a java program to implement the multilevel inheritance concepts for calculating area of triangle and rectangle.  |           |
| 4          | Explain user defined exception in java. Write a Java program that generates and handles ArithmeticException and StringIndexOutOfBoundsException using multiple try-catch blocks. |           |
| 5          | Explain thread priority and thread synchronization with appropriate example  |           |

**Uka Tarsadia University**  
**Asha M. Tarsadia Institute of Computer**  
**Science and Technology**

B.Tech. Computer Science and Engineering (CSE)/ B.Tech. CE (Software Engineering)/ B.Tech. CSE (Cloud Computing, Cyber security, Artificial Intelligence and Machine Learning)/B. Tech Computer Engineering/B. Tech Information Technology)

**Internal Examination– II**

**Subject Name: Database Management System**

**Maximum Marks: 30**

**Date: 19/12/2023**

**Timing: 01:00 PM to 02.30 PM**

**Q-1**

**Answer the following in brief. (Any 5) (10M)**

- 1 Define transaction? List out the state of transaction.
- 2 Explain deadlock with suitable example.
- 3 List the techniques to obtain the cost of a query.
- 4 Differentiate view and conflict serializability.
- 5 Write notes on phases of validation-based protocol.
- 6 Explain deferred database modification.

**Q-2**

**Answer the following in brief. (Any 4) (10M)**

- 1 Discuss various steps of query processing with proper diagram.
- 2 Explain two-phase commit protocol.
- 3 Explain how an expression can be evaluated with the help of materialization and pipeline approach.
- 4 What is database recovery? List and explain types of databases recovery.
- 5 Construct B+ tree for the following set of key values – (1,2,3,4,5,6,7,8,9,10,11,12,14,16). Assume that the tree is initially empty and the number of pointers that will fit in one node is 4.

**Asha M. Tarsadia Institute of Computer Science and Technology  
Uka Tarsadia University**

B.Tech. Computer Science and Engineering (CSE)/B.Tech. Computer Engineering  
(Software Engineering)

**Internal Examination - 2**

**Subject Name: CE4013 - Software Engineering**

**Maximum Marks: 30**

**Date: 20/12/2023**

**Timing: 09:00 AM to 10.30 AM**

**General Instructions:**

1. Take appropriate assumptions whenever necessary.
2. Figures on the right indicate full marks allocated to the questions.
3. Draw Diagrams/Figures with pencil/black ink pen only.
4. Attempt all the questions.

|            |   |           |
|------------|---|-----------|
| <b>Q-1</b> | <b>Answer the following in detail. (Any 5)</b>  | <b>10</b> |
| 1          | Describe software construction principles.  |           |
| 2          | Define data modeling with an example.   |           |
| 3          | Describe process of building requirement model in software engineering.                 |           |
| 4          | Define class based component design with the help of an example.                        |           |
| 5          | State and define any two design principles.   |           |
| 6          | Describe cohesion and coupling.   |           |
| <b>Q-2</b> | <b>Answer the following in detail. (Any 2)</b>  | <b>10</b> |
| 1          | Discuss MVC architecture with the help of an example.                                   |           |
| 2          | Explain the significance of pattern based software design.                              |           |
| 3          | Explain any two layout issues in design of web application with the help of an example. |           |
| <b>Q-3</b> | <b>Answer the following in detail. (Any 2)</b>  | <b>10</b> |
| 1          | Explain white-box testing and black-box testing with their advantages.                  |           |
| 2          | Discuss ISO 9000 quality standards for software product with their needs.               |           |
| 3          | Explain software quality assurance.   |           |

# UKA TARSADIA UNIVERSITY

B.Tech (Computer Engineering)/B.Tech (Information Technology)/B.Tech CE (Software Engineering)/B.Tech CSE/B.Tech CSE (AI&ML)/B.Tech CSE (Cloud Computing)/B.Tech CSE (Cyber Security) ( Semester 3 )  
CE4012(2022-23)/CE4012(2023-24)  
Database Management System

Date :30/12/2023

Time :1:30PM- 4:30PM

Max. Marks:60

## Instructions :

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Draw diagrams/figures whenever necessary.
5. Figures to the right indicate full marks allocated to that question.
6. Follow usual meaning of notations/abbreviations.

## SECTION - 1

Q 1 Answer the following (Any 1)

[6]

- I) Create ER diagram for the given criteria - College offers courses in different streams. In each stream, various students are enrolled. Each stream is divided into 8 semesters and each semester is divided into two sections. In each semester various subjects are taught. One subject is taught by at most one teacher and one teacher can teach more than one subjects.
- II) Explain BCNF. How does it differ from 3NF?

Q 2 Answer the following in detail. (Any 2)

[12]

- I) Client\_master (clientno, name, address, city, pincode, state, baldue)  
Product\_master(productno, name, profitpercent, unitmeasure, sellprice, costprice)  
Salesman\_master (Salesmanno, name, address, city, pincode, state, salary, tgtotget, remarks)

Write SQL queries for following statements considering the schemas given above:

- i. Find out the names of all clients.
  - ii. Delete all salesmen from salesman\_master whose salaries are equal to INR 3500.
  - iii. Destroy the table client\_master along with data.
  - iv. List the name of all clients having 'a' as the second letter in their names.
  - v. Count the number of products having cost price is less than or equal to 500.
  - vi. Calculate the average, minimum and maximum sell price of product.
- II) Define Join? Explain different types of joins with example.
  - III) Discuss the view with its syntax and by taking an appropriate example.

Q 3 Answer the following in detail. (Any 2)

[12]

- I) List significant difference between file processing system and database management system.
- II) Discuss the role of database administrator.
- III) Enlist different database users & explain their role.

## SECTION - 2

Q 4 Answer the following in Detail (Any 2)

[6]

- I) Discuss hashing along with its types.
- II) List and describe various factors used to evaluate the indexing.
- III) Consider a B tree with key size = 10bytes, block size of 512 bytes, data pointer is of size 8 bytes and block pointer is 5 bytes. Find the order of B tree.

**Q 5 Answer the following in detail. (Any 2)**

[12]

- I) What is query processing? Explain each step involved in query processing with state diagram.
- II) Explain how an expression can be evaluated with the help of materialization and pipeline approach.
- III) How to measure cost of query? Explain with an example.

**Q 6 Answer the following in detail. (Any 2)**

[12]

- I) Explain validation-based protocol with an example.
- II) Write a note on conflict serializability.
- III) Explain commit, rollback, and save point commands with an example.

# UKA TARSADIA UNIVERSITY

B.Tech (Computer Engineering)/B.Tech (Information Technology)/B.Tech CE (Software Engineering)/B.Tech CSE/B.Tech CSE (AI&ML)/B.Tech CSE (Cloud Computing)/B.Tech CSE (Cyber Security) ( Semester 3 )  
CE4013(2022-23)/CE4013(2023-24)  
Software Engineering

Date :01/01/2024

Time :1:30PM- 4:30PM

Max. Marks:60

## Instructions :

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Draw diagrams/figures whenever necessary.
5. Figures to the right indicate full marks allocated to that question.
6. Follow usual meaning of notations/abbreviations.

## SECTION - 1

### Q 1 Answer the following (Any 3)

[6]

- I) Describe software design with its significance.
- II) Enlist and describe usability in software design with an example.
- III) What is interface design? Describe with an example.
- IV) Describe data flow architecture with an example.

### Q 2 Answer the following in detail. (Any 2)

[12]

- I) Enlist and explain any three principles that guide the software engineering practice.
- II) Describe requirement analysis. Discuss requirement analysis with its significance.
- III) Explain flow-oriented modeling.

### Q 3 Answer the following in detail. (Any 2)

[12]

- I) Discuss agile framework with its significance in software development.
- II) Explain specialized process models with thier need.
- III) Discuss generic process model.

## SECTION - 2

### Q 4 Answer the following (Any 3)

[6]

- I) Describe class based component design.
- II) State any two golden rules of UI design.
- III) Describe user level analysis of software interface design.
- IV) Describe user interface design process.

### Q 5 Answer the following in detail. (Any 2)

[12]

- I) Discuss pattern languages and repositories.
- II) Explain design focus and design granularity in web application design patterns.
- III) Explain navigation semantics with an example of web application.

### Q 6 Answer the following in detail. (Any 2)

[12]

- I) Discuss McCall's quality factors.
- II) Explain software testing strategy in context of spiral approach.
- III) Explain various approaches for testing client-server applications.

# UKA TARSADIA UNIVERSITY

B.Tech (Computer Engineering)/B.Tech (Information Technology)/B.Tech CE (Software Engineering)/B.Tech CSE/B.Tech CSE (AI&ML)/B.Tech CSE (Cloud Computing)/B.Tech CSE (Cyber Security) ( Semester 3 )  
IT4016(2022-23)/IT4016(2023-24)  
Programming with JAVA

Date :03/01/2024

Time :1:30PM- 4:30PM  
Max. Marks:60

## Instructions :

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Draw diagrams/figures whenever necessary.
5. Figures to the right indicate full marks allocated to that question.
6. Follow usual meaning of notations/abbreviations.

## SECTION - 1

### Q 1 Answer the following in Detail (Any 2)

[6]

- I) What is variable? Describe types of variables.
- II) Describe type-casting along with its significance in Java programming.
- III) Define the terms - Data encapsulation, Dynamic binding and Inheritance.

### Q 2 Answer the following in detail. (Any 2)

[12]

- I) Discuss Wrapper class with example.
- II) Write a Java program to find the second smallest element from a user entered array.
- III) Explain inner outer for loop each with an example.

### Q 3 Answer the following in detail. (Any 2)

[12]

- I) Write a short note on Copy constructor with an example.
- II) Discuss the concept of inner classes and explain the types of inner classes with an example.
- III) Discuss three usages of *this* keyword with an example.

## SECTION - 2

### Q 4 Answer the following in Detail (Any 2)

[6]

- I) Describe *FileReader* class with methods.
- II) What is Applet? Describe the life cycle of an Applet with methods.
- III) Discuss reading and writing files with example.

### Q 5 Answer the following in detail. (Any 2)

[12]

- I) Write a program to create custom exceptions and show the usage of it using appropriate exception handling keywords.
- II) Write a Java program that generates NumberFormatException and ArrayIndexOutOfBoundsException and handle both the exceptions using multiple catch.
- III) Discuss the concept of synchronized blocks and synchronized methods.

### Q 6 Answer the following in detail. (Any 2)

[12]

- I) Describe types of polymorphism and explain them with a necessary Java program.
- II) Explain multilevel inheritance with an appropriate example.
- III) Discuss the implementation of interface using abstract class with an example.

# UKA TARSADIA UNIVERSITY

B.Tech (Computer Engineering)/B.Tech (Information Technology)/B.Tech CE (Software Engineering)/B.Tech CSE/B.Tech CSE (AI&ML)/B.Tech CSE (Cloud Computing)/B.Tech CSE (Cyber Security) ( Semester 3 )  
IT4017(2022-23)/IT4017(2023-24)  
Web Development

Date :05/01/2024

Time :1:30PM- 4:30PM

Max. Marks:60

## Instructions :

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Draw diagrams/figures whenever necessary.
5. Figures to the right indicate full marks allocated to that question.
6. Follow usual meaning of notations/abbreviations.

## SECTION - 1

Q 1 Answer the following in Detail (Any 2)

[6]

- I) Explain the characteristics of PHP.
- II) Differentiate *for* and *foreach* loop statements using appropriate PHP scripts.
- III) Discuss any two differences between *echo* and *print* statements of PHP with suitable examples.

Q 2 Answer the following in detail. (Any 2)

[12]

- I) Describe different types of array functions with example.
- II) Describe following string functions each with an example:
  1. str\_replace()
  2. stripslashes()
  3. explode()
- III) Define types of array in PHP. Explain it with example.

Q 3 Answer the following in detail. (Any 2)

[12]

- I) Write a PHP script to submit login credentials to the server and get the response of either "Welcome to UTU" or "You are not the legitimate user of the website".
- II) Explain any six server variables.
- III) Write a PHP script to get the browser type and display below message accordingly.  
"You are using <browser-type>!!"

## SECTION - 2

Q 4 Answer the following in Detail (Any 2)

[6]

- I) How inheritance is implemented in PHP? Explain how base class methods and properties are accessed.
- II) Write a PHP script to demonstrate method overloading.
- III) Explain interfaces using an appropriate example.

Q 5 Answer the following in detail. (Any 2)

[12]

- I) Write difference between session and cookies.
- II) Write down connection code of MySQL with PHP and explain it.
- III) Explain CRUD operation with example.

Q 6 Answer the following in detail. (Any 2)

[12]

- I) Discuss the communication of Google suggest with its users with example.
- II) Explain passing of data to the server with GET and POST method using ajax.
- III) Explain advantages and disadvantages of the ajax.

# UKA TARSADIA UNIVERSITY

B.Tech (Computer Engineering)/B.Tech (Information Technology)/B.Tech CE (Software Engineering)/B.Tech CSE/B.Tech CSE (AI&ML)/B.Tech CSE (Cloud Computing)/B.Tech CSE (Cyber Security) ( Semester 3 )  
IT4018(2022-23)/IT4018(2023-24)  
Mobile Application Development

Date :08/01/2024

Time :1:30PM- 4:30PM  
Max. Marks:60

## Instructions :

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Draw diagrams/figures whenever necessary.
5. Figures to the right indicate full marks allocated to that question.
6. Follow usual meaning of notations/abbreviations.

## SECTION - 1

**Q 1 Answer the following in Detail (Any 2)**

[6]

- I) Explain Web View with appropriate example.
- II) Explain any one menu supported in Android with suitable example.
- III) Demonstrate how to create options menu with java code snippet.

**Q 2 Answer the following in detail. (Any 2)**

[12]

- I) State the difference between onPause() and onSaveInstanceState(). Discuss it's usage with appropriate example.
- II) Explain detection of changes in screen orientation.
- III) Explain differences between Table Layout and Frame Layout.

**Q 3 Answer the following in detail. (Any 2)**

[12]

- I) List all attributes to develop a simple button.
- II) Discuss services in Android operating system.
- III) Discuss about the anatomy of Android application.

## SECTION - 2

**Q 4 Answer the following in Detail (Any 2)**

[6]

- I) Enlist advantages of JSON over Xml.
- II) Explain different components of Android web services.
- III) Write a java code for downloading Text Content.

**Q 5 Answer the following in detail. (Any 2)**

[12]

- I) How to use location in Android application using map? Explain with example.
- II) How to handle location data services? Explain in brief.
- III) Explain how to send an email from android application.

**Q 6 Answer the following in detail. (Any 2)**

[12]

- I) Write a JAVA code to retrieve & modify preferences values.
- II) List and explain various methods of Content Provider.
- III) Create a simple registration form using Edit Text, Radio Button, and store the user value in shared Preference.