

**S. S. Jain Subodh PG (Autonomous) College, Jaipur**  
**M.Sc. (IT)- II Semester**  
**Object Oriented**  
**Programming Concepts**  
**using Java Programming (PMIT-201)**  
**Assignment**

*Attempt any two questions.*

**Unit- I**

1. Explain different iterative statements of Java with suitable examples.
2. Briefly discuss different concepts of OOPs.

**Unit- II**

3. What do you understand by packages? How do we create and use packages in java? Explain.
4. What are interfaces? Explain in detail with suitable examples.

**Unit- III**

5. Briefly discuss Exceptions handling in Java? Also explain differences between throw and throws keywords.
6. Describe Applet life cycle with suitable example.

**Unit- IV**

7. Write a note on database handling in Java.
8. What is multithreading? How do we implement multithreading in Java? Explain.

# S. S. JAIN SUBODH P.G. COLLEGE, JAIPUR

Affiliated to University of Rajasthan, Jaipur

## MSC-IT Semester IV, 2024 INFORMATION TECHNOLOGY

Assignment: Data Warehousing and Data Mining  
Paper Title: PMIT401

NOTE : ATTEMPT ANY TWO QUESTIONS.

### UNIT-I

**Question 1:** Explain the Various Data Warehouse Planning and Designing Approaches.

**Question 2:** Write short note on

- i. Load Manager
- ii. Horizontal and Vertical Portioning
- iii. Data Marts and Metadata Transformation.

### UNIT-II

**Question 3:** Explain various Database Schema

**Question 4:** Write short note on

- i. Database structures and layout and file systems.
- ii. OLAP function and tools,
- iii. OLAP Servers

### UNIT-III

**Question 5:** Explain Backup strategies and disaster recovery and operations of Warehouse.

**Question 6:** Write short note on

- i. Testing data warehouse-Develop test plan
- ii. Testing backup recovery,
- iii. Testing operational environment.

### UNIT-IV

**Question 7:** Difference between technical and social context for data mining

**Question 8:** Write short note on

- i. data mining interface
- ii. data mining methodologies,
- iii. data preprocessing

**S.S. Jain Subodh P.G. College , Jaipur**

**Assignment**

**MSIT402 Elective Paper III:**

**Mobile Application Development, 2025**

Unit – I

Q. 1 Explain History of mobile software .

Q 2. Describe mobile platform in detail.

Unit-II

Q. 3 Explain Anatomy of an Android applications.

Q. 4 Explain followings

(a) Application Context

(b) Android Manifest File

Unit- III

Q. 5 Discuss android User Interface Screen elements,

Q. 6 Explain Drawing and Working with Animation in android.

Unit-IV

Q. 7. How will you Manage data using SQLite.

Q. 8. How will you use Android Web APIs.

# **S.S. Jain Subodh P.G. (Autonomous) College**

**M.Sc. IT IV Semester 2024**

**Subject –Artificial Intelligence and Expert System (PMIT-402)**

**ASSIGNMENT**

**Attempt any two questions.**

## **UNIT – I**

Q.1 What is Artificial Intelligence ? Discuss application areas of AI.

Q.2 What is state space search method ? Explain Traveling and Sales man problem in detail

## **UNIT – II**

Q.3 What is heuristic search? Explain A\* method in detail.

Q.4 Explain hill climbing method? Explain limitations of Hill Climbing method .

## **UNIT – III**

Q.5 Write short note on: - (a) Conceptual Dependency (b) Frames (c) Fuzzy logic

Q.6 What is reasoning ? Explain different types of reasoning.

## **UNIT – IV**

Q.7 What is Expert System ? Explain various components of expert system with example.

Q.8 What is Learning? Explain different types of learning.

# **S. S. Jain Subodh PG (Autonomous) College, Jaipur**

M. Sc. I.T. Semester-IV, 2024

## **PMIT402b Elective Paper I: Information Protection and Security**

### **Assignment**

**Attempt any two questions.**

#### **UNIT-I**

Q1. Describe Advanced Encryption Standard Algorithm in detail.

Q2. Write notes on following-

- a) Security Attack
- b) Asymmetric Encryption

#### **UNIT-II**

Q3. Explain RSA algorithm with proper example.

Q4. Write Short Notes on following-

- a) Fermat's Theorem
- b) Random Number Generation

#### **UNIT-III**

Q5. Describe Secure Hash Algorithm (SHA)

Q6. Explain Digital Signature Standard (DSS).

#### **UNIT-IV**

Q7. Explain Digital Signature Standard in detail.

Q8. Write notes on-

- a) Firewall
- b) SSL

**M.Sc. IV Semester, 2024**  
**INFORMATION TECHNOLOGY**  
**Assignment: Open Source Operating System**  
**Paper Code: PMIT403**

**Note: Attempt any two questions.**

**Unit- I**

1. Write about the following Unix commands with examples:  
**cal, date, who, printf, bc, script, mailx, passwd, tty, sty**
2. Write short note on
  - i. inode
  - ii. Super Block
  - iii. Kernel & Shell

**Unit- II**

3. Explain Process Management in Linux
4. Describe UNIX file system advantages and also state different commands used in system calls for input output operations.

**Unit- III**

5. (a) What is dash in shell programming? Explain with an example.  
(b) Write a shell script to accept file name from user and delete that file if it exists, else provide appropriate message to user.
6. (a) Write a shell script to count the number of lines in a text file without using “wc” command.  
(b) Difference between Shell Environment Variables and User Defined Variables.  
Demand Paging

**Unit- IV**

7. Explain different tasks of System Administrator.
8. Explain in detail booting and shutdown process of Linux operating system.

**S.S. Jain Subodh P.G. College, Jaipur**

**Assignment**

M.Sc IT IV Sem April 2024

**PMIT403b: Mobile Application Development**

***Attempt any two questions.***

Unit – I

Q. 1 What is SDK ? Explain in detail.

Q 2. Write down step to create a sample Android application.

Unit-II

Q. 3 Explain Activities, Services, Intents in android.

Q. 4 Explain different types of resources in android.

Unit- III

Q. 5 Discuss android User Interface Screen elements,

Q. 6 Explain Drawing and Working with Animation in android.

Unit-IV

Q. 7. How will you Manage data using SQLite.

Q. 8. How will you use Android Web APIs.

# **S. S. Jain Subodh P. G. College**

## **M. Sc. Information Technology II Semester, 2024**

### **Data Structure and Algorithms (PMIT202)**

#### **ASSIGNMENT**

*Attempt any two questions.*

#### **UNIT - I**

1. What is an algorithm? What are the characteristics of an algorithm? What do you mean by efficiency of an algorithm?
2. Write an algorithm and program to create an array of n integer elements and apply insert, delete and traverse operations on it.

#### **UNIT - II**

3. Write algorithms and programs for creating link list and apply operations such as traverse, insert after, insert before, delete after, delete before and delete particular element in the given link list.
4. Write an algorithm and program to sort an array through Bubble Sort technique.

#### **UNIT - III**

5. Write algorithm and program to perform the operations like - push, pop and show elements in a stack through array.
6. Write algorithms and programs to perform the operations like - insert, delete and show elements in a simple queue.

#### **UNIT - IV**

7. Write an algorithm to create a binary search tree and perform operations like insert elements, in-order, pre-order and post-order traversing of binary search tree.
8. Write an algorithm to perform BFS and DFS operations on graphs.

**S. S. Jain Subodh P.G. (Autonomous) College, Jaipur**  
**M.Sc. IT II Semester**  
**Web Designing & Development (PMIT203)**  
**Assignment**

1. Write Short notes on-
  - b. World Wide Web (WWW)
  - c. Web Server & Web Client
2. a) Lists    b) Text Formating tag

**Unit-II**

3. Explain Different Type of style sheet in CSS with examples.
4. Describe with example–
  - a. Tables

**Unit-III**

5. What are the different types of JavaScript Operators? With an example.
6. Explain DataTypes & Array in Java script.

**Unit-IV**

- ~~1. What is a form validation? What are the major attributes of the form? Explain any six form validation components with example.~~
- ~~2. Explain components of Document Object Model (DOM).~~
7. What is a form validation? What are the major attributes of the form? Explain any six form validation components with example.
8. Explain various events in Java script.

# **S.S. Jain Subodh P.G. (Autonomous) College**

**M. Sc. IT II Semester**

**Session 2023-24**

**Subject –Management Information System**

**(PMIT- 204)**

## **ASSIGNMENT**

**Note- Attempt any TWO questions from any Unit.**

### **UNIT-I**

- 1. What do you mean by System? Explain different types of Information systems.**
- 2. What is SDLC? Describe different phases of SDLC.**

### **UNIT- II**

- 3. What are features of MIS. What do you understand by MIS Plans, Prioritization and Developmental strategies?**
- 4. What do you mean by conceptual Design of MIS. How alternative system design is important to system ?**

### **UNIT-III**

- 5. What are application of basic system design concepts in MIS?**
- 6. Describe role of Top Management, End User and various department in MIS Development?**

### **UNIT-IV**

- 7. What do you understand by Office Automation system? How AI and Expert system works?**
- 8. What are the Pitfall in MIS Development.**

**S. S. JAIN SUBODH P.G.(AUTONOMOUS) COLLEGE,  
JAIPUR**

Affiliated to University of Rajasthan, Jaipur

**Msc. IT Semester II, April 2024**

**Assignment**

**Subject: Data Communication and Computer Network**

**Paper Code: PMIT 205**

**Max. Marks: 10**

---

**Instructions to the Candidates**

NOTE: Attempt any two questions

(5X2=10 marks)

---

**Unit - I**

- 1) What do you mean by Computer Network? Explain type of Networks.
- 2) Explain Data Communication System along with Mode of Communication

**Unit - II**

- 3) What do you mean by Network Topology? Explain all type of Topologies in detail.
- 4) Explain all type of Guided Media.

**Unit – III**

- 5) Explain OSI Model.
- 6) Explain Asynchronous and Asynchronous Transmission.

**Unit – IV**

- 7) Explain following
  - a) Switches
  - b) Router
  - c) Bridge
- 8) Explain following
  - a) SMTP
  - b) FTP
  - c) Broadband