S. S. Jain Subodh PG (Autonomous) College, Jaipur
M.Sc. IT I Semester, October 2025
Programming Fundamentals (PMIT101)
Assignment

Note: Attempt any four Questions from any of the unit. Each Question Carries equal marks.

UNIT - I

1. Write short notes on
   - i. Data Types
   - ii. C Tokens
   - iii. Basic Structure of a C Program

2. Explain all the Operators available in C programming language with a suitable example.

UNIT - II

3. What is an array? Write a program to find the maximum of an array of n elements.

4. What is a function? What are the different categories of a function? Explain all of them with the help of a suitable example.

UNIT - III

5. What is a structure? Write a 'C' Program to read and display data of n students using array of structures.

6. What is pointer? Write a 'C' Program to swap two numbers using pointers.

UNIT - IV

7. What is a File? Write a C program to input data into a file from keyboard and then
   display the contents of the file on the display screen.

8. What is Dynamic Memory Allocation? What are the different functions available in Dynamic Memory Allocation? Explain them.

S.S. Jain Subodh P.G. College, Jaipur (Autonomous)
M.Sc IT I Semester OCT 2025
Subject –Database Management System
(MSIT-102)

ASSIGNMENT

Instructions to students: - Attempt any **four** questions.

UNIT-I

Q1. Explain different architectures of DBMS with neat diagrams. Also explain different views of Data Schemes and Instances.

Q2. Write short notes on following-

a) Data Independence
b) Entities and attributes
c) Relationship set

UNIT-II

Q3. What is Normalization? Differentiate between 2NF and 3NF normal form in DBMS.

Q4. Write short notes on the following relational algebra operations-

a) Join
b) Cartesian Product
c) Projection

UNIT-III

Q5. Write a short note on Structured Query Language. Explain its different data types and operators.

Q6. Create a table named as "Student" with the following attributes and also insert 10 records in the given table.

Stu_ID Number (2) Primary Key,
Stu_Name Varchar (10) NOT NULL,
Address Varchar (15),
Phone Number (10)

UNIT-IV

Q7. What is a Deadlock? Explain the deadlock detection and recovery techniques.

Q8. Write short notes on following-

a) Distributed database
b) Client-Server database
c) Lock Based Protocols

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

Affiliated to University of Rajasthan, Jaipur

M.Sc. IT I Semester

Assignment

Sub- Fundamental Information Technology

Paper Code- PMIT-103

Max. Marks: 30

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Instructions to the Candidates
NOTE : Candidates are required to answer any Four questions. (7.5X4=30 marks)

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UNIT – I

Q. 1 What is Information Technology? Explain Application areas of IT.

Q.2 Discuss Generations of computer in detail.

UNIT - II

Q3 Describe different types of memories in detail.

Q4 Explain various storages devices.

UNIT - III

Q. 5 Describe Program, Flowchart and Algorithm in detail

Q6 Explain types of softwares in detail.

UNIT - IV

Q7 Explain followings

    (a) Electronic mail
    (b) Web Browsers
    (c) Search Engines

Q8 Discuss followings

    (a) Viruses
    (b) Anti-viruses
    (c) Cyber Laws

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

Affiliated to University of Rajasthan, Jaipur

M.Sc.IT First Semester, October 2025
Subject: Computer Architecture (PMIT104)

ASSIGNMENT

Note: Attempt any four questions each from one unit. Each Question Carries equal marks

Unit- I

1. What is Computer? Explain the Digital computer system with diagram.

2. Explain sequential circuit with diagram and truth table.

Unit- II

3. What are the different types of System Buses explain with Diagram.

4. (a) Explain the different types of RAM in Detail.
   (b) Explain the motherboard with RISC and CISC processor

Unit- III

5. Explain Input and Output devices in details.

6. Write short note on the following:-
   a) Hard disk
   b) Magnetic tape
   c) Modem
   d) Optical disk

Unit- IV

7. What is memory in computer organization? Explain in detail
8. Describe about the Addressing data transfer techniques.

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

Affiliated to University of Rajasthan, Jaipur
M.Sc. IT Assignment October 2025
Subject: Operating System
Paper Code: PMIT105

Unit – I

Q1) Explain different types of Software ? Describe about Translators, Assemblers, Compilers and Interpreters?

Q2) What is Operating System? Explain functions, Evolution and Chrematistics of Operating System?

Unit – II

Q3) a) What is Process? Explain Process lifecycle in detail?
    b) What is Scheduling? Explain different types of scheduling algorithms with example?

Q4) Define Deadlock? Explain deadlock prevention and avoidance techniques?

Unit – III

Q 5) Explain different memory management techniques? How single partitioning differs with multiple partition allocation?

Q6) What do you mean by Virtual Memory? Explain demand paging with suitable examples?

Unit – IV

Q7) Explain disk storage structure and access method? Explain management of sharable and non-sharable devices?

Q8) Explain file organization and access mechanism? What do you mean by file protection and security?

S.S. Jain Subodh P.G. (Autonomous) College, Jaipur
M.Sc. IT Semester-III -2025
PMIT301:.NetTechnologies
Assignments

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Note: Attempt any four Questions from any of the unit. Each Question Carries equal marks.

Unit-I

1. Explain Architecture of the .Net framework with diagram.
2. What is namespaces explain with an example?

Unit-II

3. What is Sate Management in ASP.Net? Describe client side and server side techniques with suitable examples?

4. Write short note on with example:

  (i) Page life cycle events (II) Rich Web Controls (III) Validation Controls

Unit-III

5. What is Web service? Discuss the steps involved in creating in web service in ASP.NET How the services are utilized other applications.

6. Write short note on with example:

  (i) UDDI   (II) SOAP   (III) WSDL   (IV)WebService Proxy

Unit-IV

7. Explain ADO.NET Object Model with examples.

8. Write short notes on:

  (i) Write a Programme for Populating DropDownList & GridView Control from database.

  (ii) .Net Data Providers

  (iii) ExecuteNonQuery(), ExecuteScaler(), ExecuteReader()

S. S. Jain Subodh PG (Autonomous) College, Jaipur
M.Sc. (IT) - III Semester
Python Programming (PMIT-302)
Assignment

Attempt any four questions.

Unit- I

1. What is Python? Explain Features and applications of python. different loops available in python along with suitable examples.

2. Discuss various conditional statements and loops of python.

Unit- II

3. Write short Notes on:-

   a) Tuple

   b) Dictionary

   c) List

4. Explain the set data structure in python. Also explain various mathematical operations available in python.

Unit- III

5. What do you understand by Regular Expressions in python? Explain in detail.

6. Explain the concept of Exception Handling available in Python.

Unit- IV

7. Explain the following terms:

a) Classes and Objects

b) __init__() method

c) Self-keyword

8. What do you understand by Inheritance? Explain different types of inheritances available in python?

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

MSc. Sem-III, 2025

PMIT-303: PHP Programming

Assignment

Note: attempt any four questions

UNIT - I

1. Differentiate Server Side and Client Side Programming.

2. Describe in detail about various data types in PHP.

UNIT - II

3. Explain various Control statement supported by PHP with help of suitable example.
4. What is String? Explain any four string handling functions.

UNIT - III

5. What is the difference between session and cookie? Explain with an example.
6. Differentiate between GET and POST methods in PHP.

UNIT - IV

7. How to create a connection between PHP and My SQL? Explain its step by step procedure.
8. Explain File Handling concept in PHP.

S. S. Jain Subodh PG (Autonomous) College, Jaipur
M.Sc. (IT)- III Semester
E-Commerce (PMIT 304)
<u>Assignment - 2025</u>

Attempt any Four questions. Each Question Carries equal marks

Unit - I

1) Define Ecommerce? Explain its advantage and disadvantages.

2) What is the difference between Traditional commerce and Ecommerce.

Unit - II

3) Explain Brokerage Model and Info-Mediary Model.
4) What do you mean by Competitive advantages? Explain competitive force of Portal's model.

Unit – III

5) What is EDI? Explain all types of EDI and its standards.
6) Explain following
   a. Electronic Catalogs
   b. Digital Libraries
   c. E-governance
   d. Firewall

Unit – IV

7) Explain all types of payment systems.
8) What do you mean by Payment Gateway?

S. S. JAIN SUBODH P.G. COLLEGE, JAIPUR
Affiliated to University of Rajasthan, Jaipur
(MSC-IT Semester III) Assignment
Subject: Software Engineering and Testing
Paper Title: PMIT305

Unit I
Question 1: What is Software Development Life Cycle? (SDLC) System Development Life Cycle (SDLC) is the overall process of developing information systems through a multi-step process from investigation of initial requirements through analysis, design, implementation and maintenance.
Question 2: Draw a diagram for pure waterfall life cycle.

Unit II
Question 3: Explain the different phases involved in waterfall life cycle.
Question 4: What is feasibility study? What are the contents we should contain in the feasibility report?

Unit III
Question 5: What are the purposes of Data Flow diagrams, Entity-Relationship diagrams? Give an example diagram of each.
Question 6: What is the difference between SRS document and design document? What are the contents we should contain in the SRS document and design document.

Unit IV
Question 7: List and explain different types of testing done during the testing phase.
Question 8: What is user acceptance testing? Explain different testings in user acceptance testing. Why is it necessary?