

**S. S. Jain Subodh P.G. College, Jaipur (Autonomous)**  
**B.Sc.- II Semester**  
**Subject: Advance Concepts of Programming (Using “C”)**  
**Paper Code: BSCS 201**

**Assignment, March 2025**

**Note- Attempt four questions, one question from each unit. Write answer in at least 500 words with a good presentation. Each question carries equal marks.**

**UNIT – I**

1. What is the difference between a one-dimensional and a two-dimensional array? Explain with an example. Explain the process of array initialization and representation in memory also.
2. How does a binary search algorithm work? Write a C program to implement it.

**UNIT – II**

3. What are string-handling functions in C? Explain any four with examples.
4. What do you mean by function? Describe types of user define function with examples.

**UNIT – III**

5. What is pointer? Write its advantages. Write a program to perform arithmetic operations using pointer.
6. What is the difference between structures and unions in C? Provide an example for each.

**UNIT – IV**

7. What are the different modes available for file handling in C? Explain each with an example.
8. Explain the role of pre-processor directives in C. Discuss file inclusion with an example.

**S. S. Jain Subodh P.G. College, Jaipur(Autonomous)**  
**B.Sc.- II Semester**  
**Paper Code: - bscs 202**  
**Subject: Database Management System**  
**Assignment, March 2025**

**Note- Attempt four questions, one question from each unit. Write answer in at least 500 words with a good presentation. Each question carries equal marks.**

**Max. Marks 10**

**UNIT-I**

1. What do you mean by DBMS? Explain advantages of DBMS in detail.
2. What is data independence? Explain physical data independence and logical data independence in detail.

**UNIT-II**

3. What is the ER model? Explain ER model with its various symbols.
4. Explain generalization and specialization in detail.

**UNIT-III**

5. What is functional dependency? Types of functional dependency with examples.
6. What is normalization? Explain normal forms up to 3NF.

**UNIT-IV**

7. What do you understand about SQL? Explain various features of SQL.
8. Write short note on:
  - (A) Data types in SQL
  - (B) Views and indexes

**S. S. Jain Subodh P.G. College, Jaipur**  
**B.Sc. - IV Semester**  
**Paper Code: - BSCS402**  
**Subject: Principles of Software Engineering**  
**Assignment, March 2025**

**Note- Attempt four questions, one question from each unit. Write answer in at least 500 words with a good presentation. Each question carries equal marks.**

**Max. Marks -10**

**UNIT-I**

1. What do you mean by System? Explain various characteristics of the system in detail.
2. What is the System Development Life Cycle? Explain all the Steps of SDLC in detail.

**UNIT-II**

3. Explain System Planning and Initial Investigation.
4. Explain various tools of structure analysis in detail.

**UNIT-III**

5. What are Software Process Models? Explain Waterfall and Prototype model in detail.
6. What is software design? Explain various design Principles in detail.

**UNIT-IV**

7. What do you mean by software testing? Explain white box & black box Testing.
8. What are Software Testing Strategies? Explain following testing strategies : -
  - (1) Unit Testing
  - (2) Integration Testing
  - (3) Validation Testing
  - (4) System Testing.

**S. S. Jain Subodh P.G. College, Jaipur**  
**B.Sc. - IV Semester**  
**Paper Code: - BSCS401**  
**Subject: Website Development**  
**Assignment, March 2025**

**Note- Attempt four questions, one question from each unit. Write answer in at least 500 words with a good presentation. Each question carries equal marks.**

**Max. Marks -10**

**UNIT-I**

1. Explain Different applications of Internet?
2. Write a short on –
  - I. WWW
  - II. Web Browser
  - III. Search engine.

**UNIT-II**

3. Explain Different Type of style sheet in CSS.
4. Create a HTML table given below-

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

**UNIT-III**

5. What are the different types of JavaScript Operators? With an example.
6. Explain various data types used in Java script.

**UNIT-IV**

7. What is a form validation? What are the major attributes of the form? Explain any six form validation components with example.
8. Explain components of Document Object Model (DOM).