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Department of Computer Science

ASSIGNMENT

Mathematical Foundation – II

Marks: 5X5=25

Answer all the question:

1. A. Define primary and secondary data. Explain their role in surveys with suitable examples.

(or)

- B. What are various methods of classification of data?
- 2. A. Find the mean, median and standard deviation of the weight of bullets in guns as given in the following table:

Variable	Frequency	Variable	Frequency
210-215		230-235	14
	8		
215-220	13	235-240	10
220-225			7
	16	240-245	
225-230	29	245-250	3

(or)

- B. Differentiate between Bowley's measure and Karl Pearson's measure of Skewness.
- 3. A. What is meant by correlation? What is the significance of positive?

(or)

- B. Explain the meaning of correlation. State the extreme values of the coefficient of correlation and interpret them.
- 4. A. What is joint probability? Explain the theorems of probability

(or

- B. State and prove Baye's Theorem of probability
- 5. A. A random sample of 100 mill workers at Kanpur showed their mean wages to be Rs.350 /- per week with a standard deviation of Rs.28/-. A sample of 150 mill workers in Bombay showed the mean wage to be Rs.390/- per week with a standard deviation of Rs.40/-. On the basis of the data, would you say the mean wages of mill workers in Bombay are higher than those at Kanpur?

(or)

B. What is the Chi-square test for independence? State two business situations where the test can be used appropriately.

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ASSIGNMENT

Object Oriented Programming C++

Marks: 5X5=25

Answer all the question:

1. A. Explain the basic concept of object oriented programming and application of OOP.

(Or)

- B. Explain about Function Overloading concept with suitable example
- 2. A. Explain about i) Specify a Class and defining member function ii) Constructor

(Or)

- B. Briefly explain about Operator Overloading with suitable example
- 3. A. What is Inheritance? Explain various types of Inheritance with example program

(Or)

- B. Explain about virtual function in detail
- 4. A. Explain the IO Stream Classes in C++

(Or)

- B. Explain about Formatted and Unformatted I/O operations
- 5. A. Explain about File operation in C++

(Or)

B. Write short notes on Sequential access and Random access file operation

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ASSIGNMENT

Data Structure and Computer Algorithms

Marks: 5X5=25

Answer all the question:

1. A. Discuss the importance of developing efficient algorithm.

(Or)

- B. Explain the Travelling Salesman Problem with suitable algorithm
- 2. A. Explain the Dijkstra's algorithms for single source shortest path

(Or)

- B. Briefly explain about Huffman's algorithm with suitable example
- 3. A. Explain about Array data structure in detail

(Or)

- B. Explain about Binary search in detail
- 4. A. Explain about traversing and searching a linked list in detail

(Or)

- B. Explain how we implement stack using array
- 5. A. Explain about Binary tree traversal with example

(Or)

B. Explain about searching and inserting in binary trees

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ASSIGNMENT

Operating System

Marks: 5X5=25

Answer all the question:

1. A. List out the components of Operating System.

(Or)

- B. Explain the architecture of OS.
- 2. A. Discuss the software and hardware solution for Mutual Exclusion Problem.

(Or)

- B. What is concurrent programming?
- 3. A. Explain t he term deadlock in brief with example.

(Or)

- B. Briefly explain the CPU Scheduling Algorithm.
- 4. A. Explain any three Page Replacement Algorithms with an example.

(Or)

- B. What is multiprogramming? Discuss the pros and cons of multiprogramming.
- 5. A. Explain in detail the various algorithms of Disk Scheduling with an example.

(Or)

B. Discuss the file allocation methods in detail.

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ASSIGNMENT

Software Engineering

Marks: 5X5=25

Answer all the question:

1. A. Explain the various quality and productivity factors of software engineering

(Or)

- B. Explain the following i) Phased Life Cycle Model ii) Programming Team Structure
- 2. A. Briefly explain about Software Cost Factors

(Or)

- B. Explain any Two Software Cost Estimation Techniques
- 3. A. Explain about Software Requirement Specification in detail.

(Or)

- B. Explain any Three State-Oriented Notation
- 4. A. Explain the fundamental design concepts in brief

(Or)

- B. Explain the following i) Coupling and Cohesion ii) Milestones, Walkthroughs and Inspection
- 5. A. Explain about Unit Testing and System Testing

(Or)

B. Briefly discuss about Managerial aspects of software maintenance

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ASSIGNMENT

Visual Programming

Marks: 5X5=25

Answer all the question:

1. A. Explain the parts of a visual basic project.

(Or)

- B. Explain the different loops in VB
- 2. A. What is the string handling functions available in vb.

(Or)

- B. Write short notes on visual basic menus.
- 3. A. Explain combo box, list box control in detail.

(Or)

- B. Write short notes on command buttons, option button.
- 4. A. How n add a picture to a form?

(Or)

- B. What is ADO data control? Explain.
- 5. A. Explain about the communication controls in VB

(Or)

B. How to activate the OLE objects in your program.

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ASSIGNMENT

Computer Graphics

Answer all the question:	Marks: 5X5=25
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1. A. Write an assignment on Video Display Devices

(Or)

- B. Write an assignment on Input Devices
- 2. A. Write an assignment on Bresenham's Line Algorithm

(Or)

- B. Write an assignment on Digital Differential Analyzer (DDA) Algorithm
- 3. A. Write an assignment on Color and Gray Scale Levels

(Or)

- B. Write an assignment on Fill area attributes
- 4. A. Write an assignment on Composite Transformations

(Or)

- B. Write an assignment on Basic Transformation and Matrix Representations
- 5. A. Write an assignment on Clipping Operations

(Or)

B. Write an assignment on Window – to- Viewport Coordinate Transformation

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ASSIGNMENT

Relational data base management system

Answer all the question: Marks: 5X5=25
1. A. Write an assignment on Database Design and ER Diagrams – Entities, Attributes, and Entity Sets
(Or)
B. Write an assignment on Relationships and Relationship Sets
2. A. Write an assignment on Views – Destroying / Altering Tables and Views.
(Or)
B. Write an assignment on Joins
3. A. Write an assignment on Triggers
(Or)
B. Write an assignment on Aggregate Operators
4. A. Write an assignment on Normal Forms
(Or)
B. Write an assignment on – Schema Refinement in Database Design
5. A. Write an assignment on Transaction Support in SQL

(Or)

B. Write an assignment on Encryption

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ASSIGNMENT

Computer Networks

Answer all the question:	Marks: 5X5=25
1. A. Define computer networks? Write down the uses of computer	network?
(Or)	
B. Explain in detail about ISO –OSI model.	
2. A. Write short note on guided transmission media.	
(Or)	
B. Explain the various types of errors?	
3. A. What are the two different switching techniques available in r	network?
(Or)	
B. What do you mean by aloha? Explain its types.	
4. A. What is the different between TCP & UDP?	
(Or)	
B. Explain about shortest path routing algorithm	
5. A. Define DNS, WWW, SMTP, E-mail.	
(Or)	

B. Explain about the RSA algorithm in cryptography.

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ASSIGNMENT

Web Technology

Marks: 5X5=25

Answer all the question:

1. A. What is an internet? Explain the uses of internet.

(or)

- B. Describe the structure of an html document
- 2. A. Explain the various types used to create html form with suitable examples

(or)

- B. What is a function in java script? Explain.
- 3. A. How do a VB script code different from java script code?

(or)

- B. Explain the do loop statement in VB script.
- 4. A. What are the advantages of Servlets over CGI explain

(or)

- B. Explain the concept of Servlets chaining.
- 5. A. What is the functionality of JSP?

(or)

B. What are implicit objects available to the JSP package? Explain.

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ASSIGNMENT

Programming in Java

Marks: 5X5=25

Answer all the question:

1. A. Write down the features of java?

(Or)

- B. What are the data types supported by java
- 2. A. Explain the different kinds of if statements in java.

(Or)

- B. Write a java program to find the factorial of a given number.
- 3. A. What is a constructor? explain with examples

(Or)

- B. Write a class with a method to find the area of a rectangle.
- 4. A. What is package and interface ?explain

(Or)

- B. What is an exception? Explain its types.
- 5. A. What are the methods defend in file class.

(Or)

B. Explain the different states of a thread.

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ASSIGNMENT

Operation Research

Marks: 5X5=25

Answer all the question:

1. A. Explain the system development life cycle and its components.

(Or)

- B. What are the steps Involved in feasibility analysis
- 2. A. What are the various kinds of cost?

(Or)

- B. Explain the importance of the analysis in the system development life cycle.
- 3. A. Explain the various tools that supporting the system analysis.

(Or)

- B. How will you determine system requirement?
- 4. A. What are the strategies for determining information requirements?

(Or)

- B. Explain the data model and its components.
- 5. A. What are the categories of information gathering?

(Or)

B. What are the goals and objectives of the software design?