Tulsi Computer Science & Information Technology College, Beed.

Adarsh Nagar, D.P.Road-431122

Academic Year 2023-2024

Class:-MMS FY **Total Marks:-30 Marks**

Sem - I **Subject: - Computer Organization.**

Q.1 Solve Any One 10

1. Memory Hierarchy
2. Types of Instruction.

Q.2 Fill in the blanks (10 Questions) 10

1. Computer organization refers to the _____ of components that make up a computer system and how they are interconnected.
2. The _____ is the main component of the computer responsible for processing data and executing instructions.
3. _____ is a type of memory that is directly accessible by the CPU and is used to store data and instructions that are currently being executed.
4. The _____ is responsible for fetching instructions from memory, decoding them, and executing them.
5. _____ is the process of temporarily storing frequently accessed data and instructions from the main memory to improve processing speed.
6. The _____ is responsible for managing communication between the CPU and other components of the computer system.
7. The _____ is a component of the CPU that temporarily stores data and instructions that are being processed.
8. The _____ is a component of the CPU that performs arithmetic and logical operations on data.
9. _____ is a technique used to improve the performance of a CPU by executing multiple instructions simultaneously.
10. _____ is a technique used to improve the performance of a CPU by executing instructions out of order.

Q.3 Write a short note on any two of the following terms 10

1. Pipelining in CPU. 2. Memory Array Organization 3.Virtual Memory

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - I **Subject: - Operating System.**

Q.1 Solve Any One 10

1. What is Operating System? Explain its types.
2. Explain OS services for process management

Q.2 Fill in the blanks (10 Questions) 10

1. An operating system is a layer of software that acts as an _____ between the computer hardware and the user.
2. The primary goal of an operating system is to manage computer _____ efficiently and provide a user-friendly interface.
3. A _____ is a program or set of programs that coordinates all the activities among computer hardware devices.
4. The _____ is the part of the operating system responsible for managing the allocation and deallocation of memory space.
5. _____ is the process of dividing the physical memory into fixed-size blocks to allow multiple processes to reside in memory simultaneously.
6. _____ is the process of swapping out a process from main memory to disk to free up space for other processes.
7. A _____ is a unit of work within the operating system that can be scheduled and executed by the CPU.
8. The _____ is a mechanism that protects one process from interfering with other processes or the operating system itself.
9. The _____ is responsible for managing input and output operations between the computer and its peripherals.
10. The _____ is a part of the operating system responsible for managing files and directories stored on secondary storage devices.

Q.3 Write a short note on any two of the following terms 10

1. Explain principal of I/O handler

2. What is DMA?

3. Terminals

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - I **Subject: - Information Technology Concepts.**

Q.1 Solve Any One 10

1. Explain assembler and assembly language.
2. Explain resource management and co-ordination of processor

Q.2 Fill in the blanks (10 Questions) 10

1. The process of converting data into meaningful and useful information is known as _____.
2. _____ is a field of study that deals with the design, development, and application of computer systems and networks.
3. _____ is a set of rules governing the exchange of data between devices on a network.
4. A _____ is a collection of interconnected computers that share resources and information.
5. _____ is a type of software that enables users to interact with and manipulate data using a graphical interface.
6. _____ is a branch of IT that focuses on the management and protection of computer systems, networks, and data.
7. The _____ is a global system of interconnected computer networks that use the Internet Protocol Suite (TCP/IP) to communicate.
8. _____ refers to the use of technology to store, retrieve, transmit, and manipulate data for a specific purpose.
9. _____ is a type of software that is designed to perform a specific task, such as word processing or spreadsheet calculations.
10. _____ is a branch of IT that focuses on the design, development, and maintenance of websites and web applications.

Q.3 Write a short note on any two of the following terms 10

1. GUI- Windows
2. HTML structure
3. Explain range of applications of IT.

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - I **Subject: - Financial Accounting**

Q.1 Solve Any One 10

1. Explain the accounting equation (Assets = Liabilities + Equity). Provide an example of a transaction and illustrate how it affects each component of the equation.
2. What is a trial balance, and what is its purpose in financial accounting? Describe the steps involved in preparing a trial balance and how it helps in identifying errors in the accounting records.

Q.2 Fill in the blanks (10 Questions) 10

1. The _____ principle requires that all expenses incurred in generating revenue should be matched with the revenue in the same period.
2. _____ refers to the cost of goods sold or services provided by a company during a specific period.
3. _____ are short-term, highly liquid investments that can be readily converted to known amounts of cash.
4. _____ is a financial statement that shows a company's profitability over a specific period, including revenues, expenses, and net income.
5. The _____ principle states that financial statements should be prepared with caution and high degrees of verification, ensuring that assets and income are not overstated.
6. _____ is the term used to describe the reduction in value of an intangible asset over its useful life.
7. _____ is the process of adjusting the accounts at the end of an accounting period to ensure that revenues and expenses are recognized in the correct period.
8. The _____ concept states that a business will continue to operate indefinitely, and financial statements are prepared under this assumption.
9. _____ represents a company's total earnings or profit, calculated as revenues minus expenses, taxes, and costs over a specific period.
10. _____ refers to the allocation of the cost of a natural resource over its useful life.

Q.3 Write a short note on any two of the following terms 10

1. Define the matching principle in financial accounting. How does this principle ensure that expenses are recognized in the same period as the revenues they help to generate?
2. What is bank reconciliation? Explain the process of reconciling a company's cash balance per books with the bank statement. Why is this reconciliation important?
3. Define deferred revenue and provide an example. How is deferred revenue recorded in the financial statements, and why is it classified as a liability?

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - I **Subject: - Programming in C**

Q.1 Solve Any One 10

1. Explain Tokens in C.
2. Write a C program to reverse a number.

Q.2 Fill in the blanks (10 Questions) 10

1. The _____ function is the entry point of a C program where the execution starts
2. In C, a _____ is a named memory location used to store data.
3. _____ is a set of rules governing the order in which expressions are evaluated in C.
4. The _____ operator is used to access the value stored at the address of a variable.
5. A _____ is a collection of statements that performs a specific task in a C program.
6. In C, a _____ is a block of code that can be called by other parts of the program to perform a specific task.
7. _____ is a mechanism used in C to declare and define a new data type.
8. The _____ statement in C is used to terminate the execution of a loop.
9. _____ is a process used to convert the source code of a C program into machine code that can be executed by a computer's processor.
10. In C, _____ is a keyword used to declare a variable that does not have a specified data type.

Q.3 Write a short note on any two of the following terms 10

1. Explain Structure with an example

2. Write a C program to calculate the factorial of a given number.

3. Explain pointers with example.

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - II **Subject: - C++**

Q.1 Solve Any One 10

1. Explain polymorphism
2. Explain String class library and its functions.

Q.2 Fill in the blanks (10 Questions) 10

1. In C++, _____ are user-defined data types that contain both data and functions.
2. The _____ keyword in C++ is used to dynamically allocate memory for an array.
3. The _____ operator in C++ is used to access the members of a class or structure.
4. In C++, a _____ is a special member function that is automatically called when an object is created.
5. _____ is the process of destroying objects that are no longer needed in a C++ program.
6. In C++, the _____ keyword is used to create an alias for a data type.
7. _____ in C++ is a technique used to handle exceptions that occur during program execution.
8. In C++, _____ is a mechanism used to provide multiple definitions for a function based on the types of its parameters.
9. The _____ function in C++ is used to read input from the standard input stream.
10. The _____ statement in C++ is used to terminate the execution of a loop or switch statement.

Q.3 Write a short note on any two of the following terms 10

1. Explain OOPS Concept

2. Explain Exception handling with an example

3. What is constructor?

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - II **Subject: - Management Concepts**

Q.1 Solve Any One 10

1. Explain Choice of Intermediaries
2. Explain Methods of Physical Distribution

Q.2 Fill in the blanks (10 Questions) 10

1. _____ involves setting objectives and determining a course of action for achieving those objectives.
2. _____ is the process of ensuring that an organization's resources are being used effectively and efficiently to achieve its goals.
3. The _____ style of leadership focuses on collaboration, support, and empowering team members.
4. _____ is the process of comparing actual performance with standards and taking corrective action if necessary.
5. _____ involves designing the structure of an organization to optimize resource allocation and workflow.
6. The _____ approach to management focuses on understanding the behavior of people at work.
7. _____ refers to the shared values, beliefs, and norms that influence the way employees think, feel, and behave in an organization.
8. _____ is a motivational theory which states that individuals have five levels of needs: physiological, safety, social, esteem, and self-actualization.
9. _____ refers to the process of identifying and assessing the risks facing an organization and developing strategies to manage those risks.
10. _____ is the ability to inspire and influence others toward the achievement of goals.

Q.3 Write a short note on any two of the following terms 10

1. Explain Finance Functions.
2. Explain Operation planning and control.
3. Explain Evaluation of Corporate Strategy.

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - II **Subject: - Data Structure and Pascal**

Q.1 Solve Any One 10

1. Explain Tree and different types of trees.
2. What is an algorithm? Give an example.

Q.2 Fill in the blanks (10 Questions) 10

1. A _____ is a data structure that consists of a collection of elements, each identified by an index.
2. _____ is a data structure that follows the Last In First Out (LIFO) principle.
3. In a _____ data structure, elements can be accessed in any order, not necessarily sequentially.
4. A _____ is a data structure that consists of a collection of elements, each identified by a key.
5. _____ is a data structure that follows the First In First Out (FIFO) principle.
6. Pascal is a _____ language developed by Niklaus Wirth in the late 1960s.
7. In Pascal, a _____ is a named memory location used to store data.
8. The _____ statement is used to control the flow of a program execution in Pascal.
9. _____ is a Pascal function used to read input from the standard input stream.
10. The _____ function in Pascal is used to dynamically allocate memory for variables.

Q.3 Write a short note on any two of the following terms 10

1. What is Linked List? Explain its types.
2. DFS & BFS
3. Queue and queue operations

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - II **Subject: - Statistical Methods**

Q.1 Solve Any One 10

1. Define and differentiate between discrete and continuous probability distributions. Provide an example of each and explain their applications in real-world scenarios.
2. Describe different sampling methods such as random sampling, stratified sampling, and cluster sampling. How do these methods impact the reliability and validity of statistical analysis?

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is the branch of statistics that deals with the collection, analysis, interpretation, and presentation of masses of numerical data.
2. The _____ hypothesis is a statement that there is no effect or no difference, and it is tested against the alternative hypothesis in hypothesis testing.
3. A _____ is a graphical representation that uses bars to show the frequency distribution of a data set.
4. _____ is the measure of how much two random variables change together, and it can be positive, negative, or zero.
5. A _____ sample is one in which each member of the population has an equal chance of being selected.
6. The _____ error is the probability of rejecting the null hypothesis when it is actually true, also known as a Type I error.
7. The _____ value is a measure that indicates the extent to which the sample mean deviates from the population mean in standard error units.
8. _____ refers to the strength and direction of the linear relationship between two variables, typically measured by Pearson's correlation coefficient.
9. _____ Regression is a statistical technique used to model the relationship between a dependent variable and one or more independent variables.
10. The _____ is the square root of the variance and provides a measure of the average distance of each data point from the mean.

Q.3 Write a short note on any two of the following terms 10

1. Explain the Central Limit Theorem. Why is this theorem important in the field of statistics, and how does it apply to sampling distributions?
2. What is a Chi-Square test? Discuss its use in statistical analysis, particularly in the context of testing for independence and goodness of fit.
3. Explain sampling theory.

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - III **Subject: - Software Engineering**

Q.1 Solve Any One 10

1. Explain Data flow orientation design
2. What is requirement analysis? Explain various techniques of requirement analysis.

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is a systematic approach to the design, development, and maintenance of software.
2. The _____ phase of the software development life cycle (SDLC) involves gathering and analyzing requirements for the software system.
3. _____ is a set of well-defined activities performed during the software development process to ensure the quality and reliability of the software.
4. _____ is a software development model where the entire software development process is divided into small, incremental cycles.
5. _____ is the process of removing errors and defects from software products.
6. _____ is a document that outlines the features, functionalities, and constraints of a software system.
7. _____ is a software development methodology that focuses on continuous collaboration between cross-functional teams.
8. _____ is a software development model where requirements and solutions evolve through the collaborative effort of self-organizing cross-functional teams.
9. The _____ model of software development is characterized by a linear and sequential approach to software development.
10. _____ is a testing technique used to evaluate the functionality of a software system without considering its internal structure.

Q.3 Write a short note on any two of the following terms 10

1. Explain Coupling and Cohesion
2. Explain types of testing
3. Explain SRS

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - III **Subject: - Data Communication & Network**

Q.1 Solve Any One 10

1. Explain Data Modems
2. Explain types of circuit switchings

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is the process of transmitting data from one point to another through a communication channel.
2. The _____ model is a conceptual framework used to understand and implement data communication protocols in seven layers.
3. _____ is a network topology where each node is connected to a central hub.
4. _____ is the most common protocol suite used for data communication over the Internet.
5. _____ is a device that connects multiple networks and directs data packets between them.
6. In data communication, _____ refers to the rate at which data is transmitted, typically measured in bits per second (bps).
7. _____ is the practice of using a single communication channel to transmit multiple signals simultaneously.
8. _____ is a protocol used to assign dynamic IP addresses to devices on a network.
9. _____ is a technology that allows for the secure transmission of data over an unsecured network by creating a secure, encrypted connection.
10. _____ is a type of network where each computer has the same capabilities and responsibilities.

Q.3 Write a short note on any two of the following terms 10

1. Fiber Optic Communication

2. CODECS

3. Network Topologies

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - III **Subject: - Database Management System & Oracle**

Q.1 Solve Any One 10

1. Explain DBMS Architecture
2. Explain Entity Relationship approach.

Q.2 Fill in the blanks (10 Questions) 10

1. In a database, a _____ is a single data item that resides in a table.
2. _____ is the SQL command used to add new records to a table.
3. In Oracle, _____ is a function that returns the current date and time.
4. _____ is a key that uniquely identifies each record in a database table and cannot be null.
5. _____ is the process of defining the structure, storage, and constraints of data.
6. In DBMS, _____ ensures that all changes to data are performed in a controlled and secure manner.
7. The _____ command in SQL is used to change the structure of an existing table.
8. In Oracle, _____ is a type of database object that provides a shortcut to data retrieval.
9. _____ is a method used to ensure the accuracy and consistency of data over its lifecycle.
10. In SQL, the _____ clause is used to filter records that meet certain criteria.

Q.3 Write a short note on any two of the following terms 10

1. Explain Database Recovery

2. Explain Relational Algebra

3. Explain DML commands with example.

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - III **Subject: - System Analysis**

Q.1 Solve Any One 10

1. Explain phases of system analysis and design
2. Explain Input output form design

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is the process of studying a system to identify its components and how they interact.
2. The _____ phase of system analysis involves gathering detailed information about the current system and user requirements.
3. A _____ is a graphical representation of the flow of data through a system.
4. _____ is the process of converting user requirements into a functional specification for a new system.
5. In system analysis, a _____ diagram is used to model the dynamic behavior of a system.
6. _____ are the detailed descriptions of system functions and constraints.
7. The _____ technique involves interviewing users and stakeholders to gather information about system requirements.
8. _____ is a visual modeling language used to describe the structure and behavior of a system.
9. In system analysis, _____ is the practice of breaking down a complex system into smaller, more manageable components.
10. _____ Analysis is used to identify the potential risks and their impact on a system.

Q.3 Write a short note on any two of the following terms 10

1. Explain relation between database and program

2. Explain phases of system analysis and design

3. Explain batch and online processing.

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - IV **Subject: - Artificial Intelligence & Application**

Q.1 Solve Any One 10

1. Predicate Logic
2. Explain learning by induction

Q.2 Fill in the blanks (10 Questions) 10

1. _____ learning is a type of machine learning where the model learns from labeled training data.
2. _____ is a subfield of AI that focuses on enabling machines to interpret and respond to human language.
3. _____ networks are computational models inspired by the human brain, consisting of layers of interconnected nodes.
4. _____ is the process of making decisions based on data analysis, statistical models, and machine learning algorithms.
5. In AI, _____ refers to the ability of a machine to understand and make decisions based on visual inputs.
6. _____ is a technique in AI where an agent learns to make decisions by taking actions in an environment to maximize cumulative reward.
7. _____ is a branch of AI that deals with the creation of algorithms that can improve themselves over time.
8. _____ is a type of AI system that can reason, learn, and act autonomously.
9. _____ Intelligence refers to systems that are designed to perform a narrow set of tasks, unlike general intelligence.
10. _____ is a field within AI that focuses on the design and implementation of algorithms for robots to perform tasks autonomously.

Q.3 Write a short note on any two of the following terms 10

1. Explain the concept of Artificial Intelligence (AI) and its significance in modern computing.
2. Briefly explain the role of Natural Language Processing (NLP) in AI.
3. Explain Backward Reasoning

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - IV **Subject: - Marketing Management**

Q.1 Solve Any One 10

1. Explain Concept of Marketing
2. Explain Marketing types of Marketingorganization

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is the process of identifying, anticipating, and satisfying customer needs and wants profitably.
2. A _____ market is a group of consumers or organizations that are interested in a particular product, have the resources to purchase the product, and are permitted by law and other regulations to acquire the product.
3. _____ segmentation involves dividing the market based on variables such as age, gender, income, education, and family size.
4. The _____ mix is a combination of factors that can be controlled by a company to influence consumers to purchase its products, often referred to as the 4 Ps: Product, Price, Place, and Promotion.
5. _____ is the marketing strategy that focuses on using digital technologies such as websites, social media, email, and mobile apps to reach consumers.
6. _____ pricing is a strategy where a company sets the price of its product or service based on what the competition is charging.
7. _____ refers to any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor.
8. _____ is the process of developing and maintaining a favorable public image for a company or product.
9. _____ is a marketing technique that seeks to engage consumers with personalized messages and content, often based on their behaviors and preferences.
10. _____ distribution involves using a limited number of outlets in a geographic area to sell products, striking a balance between wide availability and exclusive availability.

Q.3 Write a short note on any two of the following terms 10

1. Explain Market Planning and Budgeting.

2. Explain use of MIS.

3. How Marketing Strategy.

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Class:-MMS SY **Total Marks:-30 Marks**

Sem - IV **Subject: - System Programming**

Q.1 Solve Any One 10

1. Explain type of editors
2. Short notes on Linker and Loaders

Q.2 Fill in the blanks (10 Questions) 10

1. The _____ is the core component of an operating system that manages system resources and hardware.
2. _____ are low-level programs that interact directly with the hardware of a computer system.
3. In system programming, a _____ is a software interrupt triggered by the completion of an input/output operation.
4. _____ is a sequence of instructions written to perform a specified task with system-level operations.
5. The _____ is a special register that holds the address of the next instruction to be executed.
6. _____ is a mechanism that allows a program to request a service from the operating system's kernel.
7. _____ is a type of multitasking where the operating system allocates a specific time slice for each task.
8. In system programming, _____ is the process of converting source code into machine code.
9. _____ are used in system programming to handle errors and exceptions that occur during program execution.
10. _____ is a type of memory management technique used in system programming to manage memory allocation and deallocation dynamically.

Q.3 Write a short note on any two of the following terms 10

1. Interpretation vs Compilation

2. Explain relocatable, non-relocatable & self-relocating program.

3. What is version control?

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Class:-MMS FY **Total Marks:-30 Marks**

Sem - IV **Subject: - Java Programming**

Q.1 Solve Any One 10

1. Write a program to demonstrate constructor in Java
2. What is inheritance? Give an example.

Q.2 Fill in the blanks (10 Questions) 10

1. In Java, _____ is the process of converting source code into machine code that can be executed by the Java Virtual Machine (JVM).
2. _____ is the Java keyword used to declare a variable that cannot be changed after initialization.
3. _____ is a programming construct in Java used to iterate over a collection of elements.
4. The _____ class in Java is used to read input from the standard input stream.
5. In Java, _____ is a mechanism used for error handling to gracefully handle exceptional conditions that occur during program execution.
6. The _____ class in Java is the superclass of all classes and is automatically imported into every Java program.
7. _____ is the process of organizing and storing data in a structured format in Java.
8. _____ is a Java keyword used to define a block of code that is executed if a condition is true.
9. _____ is a type of Java loop used to repeatedly execute a block of code while a given condition is true.
10. _____ is a keyword in Java used to refer to the current instance of the class.

Q.3 Write a short note on any two of the following terms 10

1. String Handling in Java

2. What is AWT?

3. Explain java.io.

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Class:-MMS FY **Total Marks:-30 Marks**
Sem - IV **Subject: - Optimization Techniques**

Q.1 Solve Any One 10

1. Explain the concept of linear programming. Describe the steps involved in formulating a linear programming problem and solving it using the graphical method.
2. What is the Simplex Method in linear programming? Outline the key steps of the Simplex Method and explain how it helps in finding the optimal solution to a linear programming problem.

Q.2 Fill in the blanks (10 Questions) 10

1. _____ is the process of finding the best solution from all feasible solutions.
2. _____ is a mathematical technique for finding the maximum or minimum value of a function within a defined range.
3. The _____ is a mathematical approach used to find the optimal allocation of scarce resources to competing activities.
4. _____ is a technique used to optimize complex systems with many variables, constraints, and objectives.
5. In linear programming, _____ are constraints that must be satisfied for the optimization problem to be feasible.
6. _____ is a technique used to find optimal solutions when there is uncertainty or variability in the input parameters.
7. _____ is a method that iteratively moves from one solution to another to improve the objective function value.
8. _____ is a mathematical optimization technique that helps in making decisions under uncertainty and risk.
9. _____ is a technique that seeks to optimize complex systems by simulating the behavior of the system over time.
10. _____ is a method used to find the best combination of input variables that minimizes or maximizes an objective function.

Q.3 Write a short note on any two of the following terms 10

1. Differentiate between linear programming and integer programming. Provide an example where integer programming is more suitable than linear programming.
2. Describe the principle of optimality in dynamic programming. How is dynamic programming used to solve complex optimization problems, and what are its main advantages?
3. Maximize Z = 6X + 3Y
   Subject to the constraints
   $2X + 5Y \leq 120$
   $4X + 2Y \leq 80$
   $X \geq 0, Y \geq 0$