Assignment Question papers of MCA 2024-25

Session: 20224-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 101(N)	Course Name: Computer Fundamental & Its Organization

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is input-output Device? Explain the role of input-output device in computer system.	2
2	What are the difference between multitasking and multiprogramming operating system?	2
3	What are the differences between Magnetic disk & Magnetic Tape?	2
4	Explain the storage organization of Compact Disk ROM.	2
5	Explain the magnetic Disk storage organization.	2
6	What is Cache Memory? How it reduce the mismatch of processor and main memory speed?	2
	Long answer type question (approx. 500 -800 words)	Marks
7	Draw a block diagram of a computer. Explain the function of each of the blocks. Explain input and output devices	6
8	What are the various objectives and functions of Operating systems? . What are the major activities of an operating systems with regard to process management?	6
9	Convert the following Number System. a) (534)8 = (?)16 b) (101011)2 = (?)8 c) (624)8 = (?)2 d) (11101)2 = (?)8 e) (3B1)16 = (?)2 f) (AC2)16 = (?)8	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 102(N)	Course Name: Discrete Mathematics

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Prove De Morgan's laws using truth table.	2
2	How many permutations are there for the word ASSOCIATION ?	2
3	Verify that the proposition p v (P A Q) is a tautology.	2
4	How many numbers are there between 100 and 1000 such that 7 is in the unit's place?	2
5	Construct the logic circuit and obtain the logic table for the expression $x1$ v (x'2 A x'3)	2
6	Express the Boolean expression $xyz' + y'z + xz'$ in a sum of product form.	2
	Long answer type question (approx. 500 -800 words)	Marks
7	Explain the following types of relations with the help of suitable examples. • Reflexive • Anti symmetric • Transitive • Equivalence	6
8	What is the proposition? Explain different logical connectives used in propositions with the help for example	6
9	Draw a Venn diagram to represent followings: i) (A ∩ BU C) ~A ii) (A U B U C) ∩ (B ∩ C)	6

Session: 2024-25		**Max. Marks: 30**
Program Name: Master of Computer Application (MCA)		
Course Code: MCA- 103(N)		**Course Name: C Programming**

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Explain the differences between static and auto variables, with example of each.	2
2	Differentiate between structure and Union by using example	2
3	Explain the syntax of do-while statement. Also differentiate do-while from while Statement	2
4	What is recursion?	2
5	What are the logical operators in C ?	2
6	Differentiate between call by value and call by reference using example program	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What are different basic data types in C ? Explain the need of different numeric data types with example of each.	6
8	What is an array? Write a C program using array to find largest and smallest number from a list of 100 given numbers	6
9	What is function ? Explain. How a function is Called in C ?	6

Session: 2024-25	**Max. Marks: 30**	
Program Name: Master of Computer Application (MCA)		
Course Code: MCA- 104(N)	**Course Name: Numerical Analysis**	

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is the order of convergence of Newton-Raphson methods if the multiplicity of the root is one	2
2	State the principle used in Gauss-Jordan method.	2
3	State the Lagrange's. interpolation formula. What are the adv antages of Lagrange's formula?	2
4	What are the errors in Trapezoidal rule of numerical integration	2
5	State the third order R.K method algorithm to find the numerical solution of the first order differential equation	2
6	State the disadvantages of Taylor series method.	2
	Long answer type question (approx. 500 -800 words)	**Marks**
7	Describe the merits of Newton's method of iterations. State the Newton Raphson formula and the criteria for convergence	6
8	Solve by Gauss Elimination method x + y =2 and 2x + 3y = 5. State the condition for Convergence of Iteration method.	6
9	Which is better Taylor's method or R. K. Method?(or) State the special advantage of Runge-Kutta method over taylor series method. .Compare Runge-Kutta methods and predictor –corrector methods for solution of initial value problem.	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 105(N)	**Course Name: Computer Organization**

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is flip fop? Explain at least two flip-flops with excitation table.	2
2	Differentiate between asynchronous sequential circuits and synchronous sequential circuits	2
3	Explain Memory hierarchy with suitable diagram.	2
4	Explain the functionality of RAM	2
5	What do you understand by floppy disks?	2
6	Explain any five characteristics of RISC Machine	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What are logic gates? Explain the different types of logic gates with truth table and logic circuit diagram. Explain Boolean algebra with law	6
8	What is binary adder? Explain its type also. Explain half adder circuit diagram and truth table.	6
9	Explain the following 8085 microprocessor instruction with the help of an example Each DAA PUSH LDS STD XCHG	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA-OBN	Course Name: Organizational Behavior

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is job satisfaction? Briefly outline the factors affecting it.	2
2	What is the concept of perception? How is it formed?	2
3	What is attitude? Explain its components..	2
4	What are values? Differentiate between personal and organisational values.	2
5	What is personality? Describe factors affecting it.	2
6	Discuss the different types of motivation.	2
	Long answer type question (approx. 500 -800 words)	Marks
7	Discuss the Principles of scientific management and Contingency theory of management. Do you think the knowledge of OB is required by a manager? Justify with examples..	6
8	How has globalization affected organisations and what is the impact on behavior of employees?.	6
9	What is organisational behaviour? Explain its concept. "Organisational behaviour is interdisciplinary in nature ". Explain	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 107(N)	Course Name: Data Structures

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Distinguish between primitive and non-primitive data structures.	2
2	What is an algorithm? Discuss the different steps in the development of an algorithm?	2
3	Explain circular queue? Write an algorithm to insert and delete an element from a circular queue.	2
4	What is data structure? Explain various types of data structure.	2
5	Explain recursion. Write a recursive algorithm to calculate factorial of a number.	2
6	What is minimum spanning tree. Write algorithm to find the minimum spanning tree.	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What is tree traversal. Explain the in-order, preorder and post-order traversal.	6
8	What is stack? Why it is known as LIFO? Write algorithm of PUSH and POP operation on stack.	6
9	What is queue? Why it is known as FIFO? Write an algorithm to insert and delete an element from a simple queue	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 108(N)	**Course Name:** Operating System

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What are threads?	2
2	What do you mean by a address binding? Explain with the necessary steps, the binding Of instructions and data to memory addresses.	2
3	Explain the resource allocation graph.	2
4	Explain the methods for deadlock prevention	2
5	What is demand paging? Explain	2
6	What are protection goals and principles	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What is paging and swapping? Explain the paging hardware?	6
8	What is a process? Draw and explain process state diagram.	6
9	Define Operating Systems and discuss its role from different perspectives. List out different services of Operating Systems and explain each service	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 109(N)	Course Name: Software Engineering

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	List the characteristics of software contrasting it with characteristics of hardware.	2
2	How do we create a process that can manage unpredictability?	2
3	Identify the human factors considered for an agile software development	2
4	Is it possible to realize Win-Win spiral model for software. ?	2
5	Summarize the pros and cons of iterative software development model.	2
6	Define agile process .Give any two agile principles.	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What do mean by software Testing? Differentiate verification and validation. Give an example.	6
8	Write the IEEE definition of software engineering. Demonstrate your understanding of umbrella activities of a Software process. If you have to develop a word processing software product, what process model will you choose? Justify your answer and examine.	6
9	What are SDLC in water fall model? .List two deficiencies in waterfall model. Which process model do you suggest to overcome each deficiency?	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 110(N)	Course Name: C++ and Object Oriented Programming

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is Friend function in C++ ?	2
2	Differentiate between method overloading and method overriding with an example	2
3	What do mean by abstract class and container class?	2
4	What is Polymorphism ?	2
5	Write a C++ program to find the length of a given string.	2
6	What do you mean by dynamic binding? How it is useful in OOP?	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What is Inheritance? Explain its advantages. Also explain with example how a subclass is derived from a super class in C++	6
8	What is constructor? Explain constructor overloading in C++ with an example.	6
9	Explain, with suitable examples, the advantage of object oriented language over structured programming language.	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 111(N)	Course Name: Data Communication & Computer Network

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is microwave transmission?	2
2	What is spread spectrum? What are the two types of spread spectrum used in wireless data network? Elaborate.	2
3	Find the net id and host id of the following IP addresses. 114 . 35 . 2 . 7 133 . 57 . 6 . 8	2
4	What is silky windows syndrome?	2
5	Discuss any two benefits of SSL.	2
6	For n devices in a network, what is the number of cable links, number of full duplex channels for a mesh topology?	2
	Long answer type question (approx. 500 -800 words)	Marks
7	Explain the various types of multiplexing	6
8	How does BGP resolve count to infinity problem?. Explain the operation of hierarchical routing though illustration	6
9	Explain the OSI reference model with neat diagram.	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA-E1	Course Name: Web Technology

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Explain Architecture of WWW in detail.	2
2	Write short note on the "Fundamental ASP Objects".	2
3	What is JavaScript? How to develop JavaScript? Explain with example	2
4	State the difference between JavaScript and Java.	2
5	What is client side scripting? Explain with suitable example	2
6	Explain AJAX briefly	2
	Long answer type question (approx. 500 -800 words)	Marks
7	What is IIS? Explain different features of IIS.	6
8	Why HTTP is called state less protocol? Enlist various methods for state management and also give advantages and disadvantages of each method	6
9	What is HTML file and ASP file? List the advantages and limitation of HTML. State the benefits and drawback of ASP.	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA-E2	**Course Name:** Java Programming

SECTION -A		2*6=12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	**What is the use of class path ? How it helps in the execution of a java program ?**	2
2	**What is multithreading ? Explain how does it help Java in its performance ?**	2
3	**What is File class ? Explain its use with an example program**	2
4	**Explain advantage of exception**	2
5	**Explain two uses of "final" keyword with the help of example**	2
6	**Discuss servlet life cycle.**	2
SECTION -B		6*3=18 marks
	Long answer type question (approx. 500 -800 words)	**Marks**
7	**What is Inheritance ? Explain its advantages. Also explain with example how a subclass is derived from a super class in Java.**	6
8	**What is JDBC ? Explain how JDBC connectivity is established ? Give an example of preparing and executing SQL statements using JDBC.**	6
9	**What is Java beans ? Explain its features. Also, illustrate the difference between a Java bean and an instance of a normal Java class.**	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 113(N)	Course Name: python programming

SECTION -A		2*6= 12 mark s
Q. No.	Short answer type question (approx. 200 -300 words)	Mark s
1	Write Python program to calculate the Arc Length of an Angle by assigning values to the radius and angle data attributes of the class Arc Length	2
2	Describe the different access modes of the files with an example	2
3	Write Python Program to simulate a Bank Account with support for deposit Money, withdraw Money and show Balance Operations.	2
4	Discuss inheritance in Python programming language.	2
5	Write a Program to demonstrate the Overriding of the Base Class method in the Derived Class.	2
6	Write a Python program to demonstrate the use of super() function.	2
SECTION -B		6* 3=18 mark s
	Long answer type question (approx. 500 -800 words)	6
7	Write Python program to sort words in a sentence in decreasing order of their length. Display the sorted words along with their length	
8	Discuss the following methods associated with the file object	

	a) read() b) readline() c) readlines(),	6
9	Explain the different string formats available in Python with examples. Discuss the int(), float(), str(), chr() and complex() type conversion functions with examples.	6

Session: 2024-25	**Max. Marks: 30**
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 114(N)	**Course Name:** Design and Analysis of Algorithms

SECTION -A		
		2*6= 12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	State the Greedy Knapsack Problem.	2
2	Distinguish between Prim's and Kruskal's Spanning tree algorithm	2
3	Define Chromatic number & Give the state space tree for 4 – coloring problem	2
4	Draw all possible binary search trees for the identifier set (do, if, stop).	2
5	Distinguish between Dynamic Programming and Greedy method.	2
6	What is a Backtracking and give the 4 – Queens's solution.	2
SECTION -B		
		6* 3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	What is meant by Divide – and – Conquer approach? Write Divide – And – Conquer recursive Merge sort algorithm and derive the time complexity of this algorithm. Write the General method of Divide – And – Conquer approach.	6
8	What is a Hamiltonian Cycle? Explain how to find Hamiltonian path and cycle using backtracking algorithm	

9	Explain the properties of an algorithm with an example. Give the algorithm for matrix multiplication and find the time complexity of the algorithm using step – count method. Differentiate between Bigoh and omega notation with example	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 115(N)	Course Name: Data Base Managment

SECTION -A		2*6= 12 marks
Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is DBA? Mention the functionalities of DBA	2
2	Explain in detail about internal hashing Techniques.	2
3	How are views created and dropped? Explain, how the views are implemented and updated	2
4	Discuss in detail about cluster and Multilevel indexes.	2
5	State BCNF. How does it differ from 3NF?	2
6	Discuss 3-tier architecture with necessary diagram and suggest an example application	2
SECTION -B		
		6*

		3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	Draw and explain the detailed system architecture of DBMS. What are the advantages of DBMS?	
		6
8	Discuss the ACID properties of a database transaction with appropriate examples. Draw transaction state diagram and describe each state that a transaction goes through during its execution.	
		6
9	Explain in detail about various key constraints used in database system. Explain the importance of Null values in Relational Model	

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 116(N)	Course Name: Multimedia Technology

SECTION -A		
		2*6= 12 marks
Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	What is Hypertext and Hypermedia	2
2	What is Sound? Explain the characteristics of Sound.	2
3	What is Sound Card? Explain the basic components of sound card.	2
4	Explain various types of DVD	2
5	What do you mean by Animation?	2
6	Explain properties of Magnetic Storage Devices.	2
SECTION -B		
		6*

		3=18 marks
	Long answer type question (approx. 500 -800 words)	**6**
7	**What is multimedia? Explain the applications of multimedia in business. Explain the five elements of Multimedia Systems.**	
8	**What is digital video? Explain the use of digital video in developing multimedia applications.**	**6**
9	**Explain about the three Video Signal Formats. Write a short note on MIDI function**	**6**

Session: 2024-25	Max. Marks: 30
Program Name: **Master of Computer Application (MCA)**	
Course Code: MCA- 117(N)	Course Name: **Microprocessor and its Application**

SECTION -A		
		2*6= 12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	**How do you classify the memory in a computer system.**	2
2	**Define timing diagram**	2
3	**What is ROM? Explain its various types.**	2
4	**Explain the timing of the instruction cycle of 8085 microprocessor,**	2
5	**Define machine language?**	2
6	**What are the rules for adding two binary numbers? Illustrate with an example.**	2

SECTION -B		6* 3=18 marks
	Long answer type question (approx. 500 -800 words)	**6**
7	**Explain different parts of microprocessor in detail**	
8	**Explain the timing of the instruction cycle of 8085 microprocessor, Discus with example the iterative branching instructions of 8085?**	**6**
9	**What he various flags available in 8085 microprocessor? What are general purpose registers? Name the various general purpose registers. Explain the pin diagram of 8085 microprocessor**	**6**

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- E3(N)	**Course Name:** Client Server Technology

SECTION -A		2*6= 12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	**Write short note on the "Fundamental ASP Objects".**	**2**
2	**Explain AJAX briefly**	**2**
3	**What is JavaScript? How to develop JavaScript? Explain with example**	**2**
4	**What is client side scripting? Explain with suitable example**	**2**

| 5 | State the difference between JavaScript and Java. | 2 |
| 6 | What is FTP? | 2 |

SECTION -B		
		6* 3=18 mark s
	Long answer type question (approx. 500 -800 words)	6
7	What is HTML file and ASP file? List the advantages and limitation of HTML. State the benefits and drawback of ASP.	
8	What is IIS? Explain different features of IIS.	6
9	Why HTTP is called state less protocol? Enlist various methods for state management and also give advantages and disadvantages of each method	
		6

Session: 2024-25	Max. Marks: 30
Program Name: **Master of Computer Application (MCA)**	
Course Code: MCA- E4(N)	**Course Name:** System Analysis and Design

SECTION -A		
		2*6= 12 mark s
Q. No.	Short answer type question (approx. 200 -300 words)	**Mark s**
1	Write the importance of quality in software development.	2
2	Write short notes on Test Design Document	2
3	Define CASE tools. Explain their role	2
4	Write short notes on. Coupling	2

5	With the help of an example, explain a sequence diagram	2
6	Write short notes on Participatory Design	2

SECTION -B		6*3=18 marks
Long answer type question (approx. 500 -800 words)		6
7	Draw a Data Flow Diagram (DFD) till second level depicting various processes,data flow and data repositories for a"Library Management System". Follow the conventions.	6
8	Define modularity. Describe the ways and means to achieve modularity. Explain with the help of an example.	6
9	Define a Structure Chart. Draw a Structure Chart for a Payroll Processing System. Also,explain the symbols used in the chart.	6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- E5(N)	Course Name: Information and network security

SECTION -A		2*6=12 marks
Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Explain the types of attacks.	2
2	What are the security aspects attached to Electronic money.	2

3	Describe various security approaches.	2
4	Explain the need and types of firewall.	2
5	What is digital certification? How it can be achieved?	2
6	What is virtual private network?	2

SECTION -B		
		6* 3=18 mark s
	Long answer type question (approx. 500 -800 words)	6
7	What is cryptanalysis? What is encryption and decryption? Draw block diagram that shows encryption and decryption.	
8	Explain one time pad and why it is secure? Describe two types of cryptographic algorithms	6
9	What is the difference between authentication, integrity, confidentiality and nonrepudiation? What are the issues in information security and network security? How they can be solved	
		6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- E6(N)	Course Name: Data Mining

SECTION -A	
	2*6= 12 mark s

Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	1. Explain the role of Meta data in a data warehouse.	2
2	1. What is Supervised learning?	2
3	2. Define multidimensional and multilevel association mining.	2
4	1. Define Snowflake Schema	2
5	2. What do you mean by Web mining.?	2
6	Discuss K-Means Clustering	2
SECTION -B		6*3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	What are the different characteristics of a Data Warehouse?	
8	Explain Hierachical Clustering methods.	
9	Explain Classification Algorithms	6
		6

Session: 2024-25	Max. Marks: 30
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 119(N)	Course Name: Theory of Computation

SECTION -A	
	2*6= 12 mark

Q. No.	Short answer type question (approx. 200 -300 words)	s Marks
1	1. Write TM to accepting Palindrome	2
2	1. What is Halting Problem. ?	2
3	2. Discuss about Top Down Parsing And Bottom Up Parsing	2
4	1. Discuss about Chomsky Normal Form(CNF).	2
5	2. Differentiate the NP Hard and NP Complete Problems	2
6	1. Define Pumping Lemma for Regular Languages	2
	SECTION -B	6*3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	Define regular language and regular expressions. Find regular expression for the Language of all string that do not end with 01.	
8	.Find context free grammar generating following language {aibjck | i = j or i = k} Show that CFG S a|Sa|bSS|SSb|SbS is ambiguous	6
9	Write short notes on the following: a. The Primitive Recursive Functions. b. The Sets P, NP, P Space and NP Space	6

Session: 2024-25	**Max. Marks: 30**
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 120(N)	**Course Name: soft computing**

SECTION -A	
	2*6=

		12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	**Draw and explain Mathematical Models of Neurons.**	**2**
2	**Define and explain concept of Fuzzy subsets and membership Function.**	**2**
3	**Describe limitations of fuzzy systems.**	**2**
4	**What are the Problem Characteristics of Artificial Intelligence?**	**2**
5	**Describe briefly the applications of AI.**	**2**
6	**Differentiate the DFS and BFS with merits and demerits**	**2**
	SECTION -B	**6* 3=18 marks**
	Long answer type question (approx. 500 -800 words)	**6**
7	**Outline the differences between hard computing and soft computing . Draw and explain artificial neural network architecture.**	
8	**What is the role of fitness function in genetic algorithm. Explain the genetic operators and fitness functions in respect of evolutionary computing.**	**6**
9	**Define Fuzzy logic with example. Write comparison between fuzzy logic and crisp logic.Compare classical and fuzzy sets.**	**6**

Session: 2024-25	**Max. Marks: 30**
Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 121(N)	**Course Name: Computer Graphics**

SECTION -A		2*6= 12 marks
Q. No.	Short answer type question (approx. 200 -300 words)	Marks
1	Explain working of Video controller.	2
2	Explain Shadow mask and beam penetration method.	2
3	Explain flat-panel display in detail.	2
4	Explain DDA line drawing algorithm with its drawbacks. .	2
5	Explain midpoint Circle algorithm.	2
6	Explain midpoint ellipse algorithm.	2
SECTION -B		6* 3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	Write a short note on working of raster scan display system and random scan display system	
8	Define the following. Window Viewing transformation Point clipping	6
9	Explain the following transformation with the matrix representations. Give suitable diagram for illustration. Translation Scaling. Rotation	6

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Session: 2024-25	Max. Marks: 30

Program Name: Master of Computer Application (MCA)	
Course Code: MCA- 122(N)	**Course Name:** Unix and shell Programming

SECTION -A		
		2*6= 12 marks
Q. No.	**Short answer type question (approx. 200 -300 words)**	**Marks**
1	**Explain the three standard files with respect to UNIX operating system.**	2
2	**Briefly explain the different ways of addressing used in sed with example.**	2
3	**Explain the mechanism of process creation using system calls in UNIX**	2
4	**What is AWK? Explain any three built-in functions in AWK.**	2
5	**Explain with an example 'while' and 'for' loop in shell programming**	2
6	**Explain grep command with all options.**	2
SECTION -B		
		6* 3=18 marks
	Long answer type question (approx. 500 -800 words)	6
7	**Explain be architecture of UNIX operating system with a neat diagram.**	
8	**What are the different modes of vt editor ? Explain with a diagram**	6
9	**Explain internal and external commands with example.**	6