# PRACTICAL RECORD

PAPER CODE: ETCS -458 (PPL)

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BRANCH : CSE-I

LAB GROUP : 8C7

S.	PROGRAMS	DATE OF	DATE OF	R1	R2	R3	R4	R5	TOTAL	SIGNATURE
NO.		EXP	SUBMISSION	(3)	(3)	(3)	(3)	(3)	MARKS	
1.	Implement all major functions of string.h in single C programusing switch case to select specific function from user choice (like strlen, strcat, strcpy, strcmp, strrev)									
2.	Write a program (WAP) in C to reverse a linked list iterativeand recursive.									
3.	WAP in C to implement iterative Towers of Hanoi.									
4.	WAP in C++ to count the no.s of object of a class with the helpof static data member, funtion and constructor.									
5.	WAP in C++ & Java to declare a class Time with data membersmm for minutes, ss for seconds and hh for hours. Define a parameterize constructor to assign									

	time to its shipsts. Add							
	time to its objects. Add two time objects using							
	memberfunction and							
	assign to third objects.							
	Implement all possible							
	cases of time.							
6.	WAP in C++ to define a							
	class							
	Complex to represents set of all complex							
	numbers. Overload '+'							
	operator to add two							
	complex numbers using							
	member function of the							
	class and overload '*'							
	operator to multiply							
	two complex numbers							
	using friendfunction of the class complex							
	the class complex							
7.	Implement simple							
	multi-threaded server							
	to perform all							
	mathematics operation							
	parallel in Java.							
8.	Write a program in to							
	prepare a list of 50							
	questions and their							
	answers							
9.	Write a program to							
	display 10 questions at							
	random out of exp.8-50							
	questions (do not							
	display the answer of							
	these questions to the							
	user now)							
10.	Implement producer-							
	consumer problem							
	using threads							
		Beyond	the syllabus E	xper	imen	ts		
1.	Write a Program where							
	it may or may not print							
	counter value in							
	sequence and every							
	time we run it, it produces a different							
	produces a different							

		1				
	result based on CPU	1				
	availability to a thread.					
2.	There are 200					
		1				
	questions on a 3 hr	1				
	examination. Among	1				
	these questions are 50	1				
	mathematics problems.	1				
	It is suggested that	1				
	twice as much time be					
	spent on each maths	1				
	problem as for each					
	other question. WAP					
	which calculates how					
	many minutes should					
	be spent on					
	mathematics problems.					
3.	m 1 ' '					
5.	Two polynomials are					
	entered by the user in					
	the form of : $ax2 + bx$					
	+ c where the powers					
	of x can be any integer					
	value and a,b& c are					
	constants. Now WAP					
	in C and JAVA which					
	calculates the sum,					
	product and difference					
	of the two polynomials.					
4.	The hexadecimal digits					
	are the ordinary, base-					
	10 digits '0' through '9'					
	plus the letters 'A'					
	through 'F'. In the hexadecimal system,					
	these digits represent					
	the values 0 through					
	15, respectively. Write					
	a function in JAVA and					
	C named hexValue that					
	uses a switch statement					
	to find the hexadecimal					
	value of a given					
	character. The					
	character is a parameter					
	to the function, and its					
	hexadecimal value is					
	the return value of the					
	function. You should					
	count lower case letters					

	'a' through 'f' as having the same value as the corresponding upper case letters. If the parameter is not one of the legal hexadecimal digits, return -1 as the value of the function.					
5.	A coffee shop blends 2 kinds of coffee, putting in 2 parts of a 33p. a gm. grade to 1 part of a 24p. a gm. If the mixture is changed to 1 part of the 33p. a gm. to 2 parts of the filess expensive grade .WAP which calculates that how much will the shop save in blending 100 gms					
6.	In June a baseball team that played 60 games had won 30% of its game played. After a phenomenal winning streak this team raised its average to 50%. WAP which calculates how many games must the team have won in a row to attain this average.					
7.	A company contracts to paint 3 houses. Mr. Brown can paint a house in 6 days while Mr. Black would take 8 days and Mr. Blue 12 days. After 8 days Mr. Brown goes on vacation and Mr. Black begins to work for a period of 6 days. WAP which calculates how days will it take Mr. Blue to complete the contract.					

8. 2 hours after a freight train leaves Delhi a passenger train leaves the same station traveling in the same direction at an average speed of 16 km/hr.  After traveling 4 hrs the passenger train overtakes the freight train. WAP which calculates the average speed of the freight train.	train leaves Delhi a passenger train leaves	
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	traveling in the same direction at an average speed of 16 km/hr.  After traveling 4 hrs the passenger train overtakes the freight train. WAP which calculates the average speed of the freight	



# MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY VISION

To nurture young minds in a learning environment of high academic value and imbibe spiritual and ethical values with technological and management competence.

#### **MISSION**

The Institute shall endeavor to incorporate the following basic missions in the teaching methodology:

### **Engineering Hardware – Software Symbiosis**

Practical exercises in all Engineering and Management disciplines shall be carried out by Hardware equipment as well as the related software enabling deeper understanding of basic concepts and encouraging inquisitive nature.

## Life - Long Learning

The Institute strives to match technological advancements and encourage students to keep updating their knowledge for enhancing their skills and inculcating their habit of continuous learning.

#### Liberalization and Globalization

The Institute endeavors to enhance technical and management skills of students so that they are intellectually capable and competent professionals with Industrial Aptitude to face the challenges of globalization.

#### **Diversification**

The Engineering, Technology and Management disciplines have diverse fields of studies with different attributes. The aim is to create a synergy of the above attributes by encouraging analytical thinking.

## **Digitization of Learning Processes**

The Institute provides seamless opportunities for innovative learning in all Engineering and Management disciplines through digitization of learning processes using analysis, synthesis, simulation, graphics, tutorials and related tools to create a platform for multi-disciplinary approach.

# Entrepreneurship

The Institute strives to develop potential Engineers and Managers by enhancing their skills and research capabilities so that they become successful entrepreneurs and responsible citizens.



## MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

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## **VISION**

"To be centre of excellence in education, research and technology transfer in the field of computer engineering and promote entrepreneurship and ethical values."

## **MISSION**

"To foster an open, multidisciplinary and highly collaborative research environment to produce world-class engineers capable of providing innovative solutions to real life problems and fulfill societal needs."