Retest I: QUESTION PAPER

Operating Systems- CS235AI				
SL No.	**Part A**	**M**	**BT**	**CO**
1.1	Give one Difference between wait and sleep system call	01	2	2
1.2	List any four services provided by Operating system.	02	1	2
1.3	Highlight the purpose of Scheduler and Dispatcher.	02	1	1
1.4	Analyse the state the process moves for the following events: i. A process makes a I/O request during running state. ii. A process is in running state and Interrupt occurs.	02	3	1

1.5	In the following code how many number of process are created with 3 fork system calls?
	int main() {
	fork();
	fork();
	fork();
	return 0;
	}
		02	3	2

1.6	Define system call.	01	1	2
	Part B			
1.a	In a c program written to demonstrate system calls substantiate with answers for the following questions: i. In the context of parent what is the output of pid() system call ? ii. In the context of child what does sleep() function signify? iii. In the context of parent what is the output of getppid() system call ? iv. What does fork() system call return? v. In the context of child what is the output of getppid() system call ?	05	3	3
1.b	Explain the features of user level threads and kernel level threads.	05	2	2
2.a	With a process state diagram, explain the states in which process moves during its lifecycle.	06	2	2
2.b	Differentiate between Process and Threads with relevant examples.	04	2	2
3.a	Discuss the following Operating System highlighting the advantages and disadvantages of each structure in terms of modularity, performance, and system complexity. i) Layered structure ii)Microkernel structure	04	2	2
3.b	Describe the advantages and disadvantages of using threads in an operating system.	06	2	2
4.a	Explain the purpose of: i)Short term scheduler ii)Long term scheduler iii)Medium term scheduler	06	2	1
4.b	Write a C program to demonstrate the thread concepts using system to create a thread and utilize the join system call .	04	3	2
5.a	Describe the dual modes of operation of the Operating System with a diagram.	04	2	3
5.b	With the relevant diagram discuss the multithreading models.	06	2	2