SAGE University Indore
Institute of Computer Application
Mid-Semester Test I
BCA semester I: Oct -2023

Institute Name: Computer Application	Subject: Operating Systems
Program Name: BCA	Branch: BCA
Semester: I	Section: A-B-C-D
Subject Code: CAPDCOPS003T	Session: July-Dec-2023
Unit Test No: 1,2	Date of Test: 09/10/2023
Max. Marks: 20	Allotted Time: (90 min duration max)

CO1: Describe the important computer system resources and the role of operating systems in their management policies and algorithms.
CO2: After learning the fundamental concepts of Operating systems including how OS has evolved over the years and different components of OS.
CO3: Students will continue to more significant functions of OS like Process management, storage and memory management, etc.

Note: All Questions carry equal marks, Attempt any five questions.

Q. No.	Questions	Marks	CO	BL
Q.1	What is an Operating System and what are the goals and functions of an Operating System?	4	C1	L1
Q.2	Define System Call and also explain fork system call with an example.	4	C1	L1
Q.3	What is a process and what are the different states of a process?	4	C2	L1
Q.4	Consider the set of 5 processes whose arrival time and burst time are given below- Process Id / Arrival time / Burst time P1 / 0 / 5 P2 / 1 / 3 P3 / 2 / 1 P4 / 3 / 2 P5 / 4 / 3 If the CPU scheduling policy is FCFS, calculate the average waiting and turnaround times.	4	C2	L1
Q.5	What is the difference between Preemptive and Non Preemptive scheduling?	4	C2	L1
Q.6	Define Threads and its importance.	4	C2	L5
Q.7	Explain the Process Control Block with a diagrammatic representation.	4	C5	L2
Q.8	Define: - 1. Types of Operating Systems. 2. User and Kernel threads.	4	C5	L6