

**AKI's Poona College of Arts, Science & Commerce**  
**DEPARTMENT OF BBA (CA)**  
**SYBCA 2024-25**  
**(CA – 403) Operating System**  
**Theory Assignment – 1**

**Note:** Write down the assignment in your own hand writing and submit it on or before 18<sup>th</sup> January 2025.

**[ 2 Marks ]**

- 1) Define process.
- 2) What is context switch?
- 3) List any 4 characteristics of operating system.
- 4) What is the role of operating system?
- 5) Write any two services provided by OS.
- 6) What is meant by System Call?
- 7) Define Dispatcher.
- 8) Define System program.
- 9) What is multiprogramming?
- 10) What is the purpose of CPU Scheduling?
- 11) What are the benefits of a multiprocessor system?
- 12) Why do we need an operating system?

**[ 4 Marks ]**

- 1) 'Operating system is like a manager of the computer system'. Explain.
- 2) What is scheduling? Compare short term scheduler with medium term scheduler.
- 3) Compare multiprogramming with a multiprocessing system.
- 4) Explain Operating System Structure.
- 5) Calculate average turn around time and average waiting time for all set of processes using FCFS algorithm.

Processes	Burst Time	Arrival Time
P <sub>1</sub>	5	1
P <sub>2</sub>	6	0
P <sub>3</sub>	2	2
P <sub>4</sub>	4	0

- 6) What are the difference between Preemptive and Non-Preemptive Scheduling?
- 7) Difference between batch operating system and real time operating system.
- 8) What is the role of an Operating System? Explain the services provided by the operating system in detail.

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