K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)
Semester: July 2017 - November 2017

Max. Marks: 30 **Duration: 1hr.15 min**.

Class: TY Semester: V

Branch: IT

Test1 Name of the Course: Operating System

Question No.		**Max. Marks**	**CO Mapped**	**Bloom's Taxonomy Level**
Q1 (a)	Differentiate between Monolithic and Layered OS architecture.	05	CO1	Comprehension
Q1 (b)	Explain objectives and functions of operating system.	05	CO1	Knowledge
Q. 2	Consider the following data and solve for Gantt chart and calculate average waiting time and average turn around time:- Process | Burst time | Arrival Time P1 | 4 | 0 P2 | 5 | 2 P3 | 6 | 4 P4 | 2 | 5 P5 | 1 | 6 i) FCFS ii) SJF(Preemptive and Non preemptive) iii) Round Robin(Time slice= 2 m/s)	10	CO2	Application
Q. 3 (a)	Draw and explain 5-state process diagram. Can a process make a transition from a ready state to the blocked state? Why or why not?	05	CO2	Knowledge
Q. 3 (b)	Define deadlock. Explain four necessary and sufficient conditions for a deadlock to occur.	05	CO2	Knowledge