

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B. Tech. (CSE/IT)

COURSE CODE (CREDITS): 18B11CI411

MAX. MARKS: 15

COURSE NAME: OPERATING SYSTEMS

COURSE INSTRUCTOR: Ajeet Kumar Verma

MAX. TIME: 1 Hour

*Note: (a) All questions are compulsory.*

*(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

*(c) Use of calculators is not allowed*

Q.No	Question	CO	Marks
Q1	Define an Operating System. Explain any two major services provided by an Operating System.	1	3
Q2	Compare Monolithic Kernel and Microkernel Architecture with respect to structure and performance.	1	3
Q3	Explain the Process Control Block (PCB). List and briefly describe any four fields present in a PCB.	2	3
Q4	What is a Thread? Explain any three benefits of multithreading in an operating system.	2	3
Q5	A process requires 5ms of CPU time. If a context switch takes 0.5ms and the process undergoes 4 context switches,  1. Calculate the total time spent in context switching. 2. Find the total execution time of the process.	2	3