

Exam Number: \_\_\_\_\_

**KADI SARVA VISHWAVIDYALAYA**  
**B.E. 6<sup>th</sup> (NEW) EXAMINATION APRIL - 2025**

Subject Name : Advanced Operating System

Subject Code: CT605C-N

Date: 16/04/2025 (Wednesday) Time: 12.30 pm to 03.30 pm

Total marks: 70

Instructions:

1. Answer each section in separate Answer sheet.
2. All questions are compulsory.
3. Indicate clearly, the options you attempt along with its respective question number.
4. Use the last page of main supplementary for rough work.

**Section-I**

Q.1 (A) Explain functions of operating systems. (5)

(B) Define Advanced Operating System? Explain types of advanced operating systems. (5)

(C) Discuss Design issues in distributed operating system. (5)

OR

(C) Explain Lamport's Algorithm for mutual exclusion in distributed system. (5)

Q.2 (A) Explain Suzuki-Kasami broadcast algorithm. (5)

(B) What is distributed system? Explain the distributed file systems. (5)

OR

Q.2 (A) Discuss Architecture of distributed operating systems. (5)

(B) List out the limitations of distributed systems. (5)

Q.3 (A) What is multi-processing operating System? Explain types of it. (5)

(B) Explain test and set method. (5)

OR

Q.3 (A) Short note on reliability and fault tolerance in multi-processing operating system. (5)

(B) Discuss the swap instruction in detail. (5)

## Section-II

- Q.4 (A) Define micro kernels and monolithic kernels in RTOS (5)  
(B) What is RTOS? Discuss the characteristic of it. (5)  
(C) Discuss performance measures in RTOS. (5)

OR

- (C) List out the applications of various RTOS. Explain any two. (5)

- Q.5 (A) Define the scheduling in RTOS. Write any one scheduling in detail. (5)  
(B) Define scheduling in Symbian OS. (5)

OR

- Q.5 (A) Short note on I/O in Symbian OS. (5)  
(B) Explain kernel design in Symbian OS. (5)

- Q.6 (A) Short note on Application development using Android. (5)  
(B) Short note on database operating systems. (5)

OR

- Q.6 (A) List and give the overview of concurrency control algorithms. (5)  
(B) Explain concurrency control in detail. (5)

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