

**004713**

**Dec. 2021**  
**B.Tech. (CSE/IT) VII SEMESTER**  
**Advanced Operating System**  
**(PEC-CS-S-701-I//OEC-IT-702-I)**

Time : 90 Minutes]

[Max. Marks : 25

*Instructions :*

1. *It is compulsory to answer all the questions (1 mark each) of Part-A in short.*
2. *Answer any three questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

**PART - A**

1. (a) What do you mean by replication transparency in distributed system? (1)
- (b) Name one deadlock prevention algorithm in distributed system. (1)
- (c) Which type of scheduling is used in multiprocessor system where a process is scheduled to be on same processor where it last executed? (1)
- (d) What is residual dependency? (1)

- (e) Differentiate static and dynamic scheduling in Real time OS. (1)
- (f) What is the purpose of actuators in real time systems? (1)
- (g) Define Background processes in mobile operating system. (1)
- (h) Which type of memories are used in mobile system? (1)
- (i) Explain the concept of multiprogramming. (1)
- (j) What is resident monitor? (1)

**PART - B**

- 2. What are the functions of an operating system both from the user's and system's viewpoint. (5)
- 3. (a) What are the design issues in distributed operating system? Explain them. (3)  
(b) What are different structures of multiprocessor operating system? (2)
- 4. Differentiate between the following : (5)
  - (i) Distributed OS & Network OS.
  - (ii) UMA & NUMA.

- 5. (a) Explain the architecture of Android operating system. (3)  
(b) Explain Priority Ceiling Protocol. (2)
- 6. (a) What are the types of Real time systems? Give example for both types. (3)  
(b) Explain Remote Procedure Call. (2)