

Total No. of Questions: 5]

SEAT No. :

P1308

[6055]-401

[Total No. of Pages :2

**T.Y. B.Sc. (Computer Science)
CS-361 : OPERATING SYSTEMS-II
(2019 Pattern) (Semester-VI)**

Time : 2 Hours]

[Max. Marks : 35

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Attempt any Eight of the following.

[8×1=8]

- a) What is claim edge?
- b) What is request edge?
- c) List any two file attributes.
- d) List any two Disk performance parameters.
- e) Define distributed system.
- f) Write any two design goals of distributed systems.
- g) What is cluster computer?
- h) What is grid computing?
- i) What is size scalability in distributed systems?
- j) What is kernel?

Q2) Attempt any Four of the following.

[4×2=8]

- a) What are advantages of windows mobile OS?
- b) Write the difference between SCAN & Look disk Scheduling algorithms.
- c) Explain in brief sensor network.
- d) Write a short note on centralised organisation system architecture.
- e) Define.
 - i) Seek time
 - ii) Rotational latency

P.T.O.

Q3) Attempt any Two of the following.

[2×4=8]

- a) Consider the given snapshot of the system. A system has 5 processes and 3 types of resources A,B,C.

	Allocation		
	A	B	C
P ₀	0	1	0
P ₁	2	0	0
P ₂	3	0	2
P ₃	2	1	1
P ₄	0	0	2

Max		
A	B	C
7	5	3
3	2	2
9	0	2
2	2	2
4	3	3

Available		
A	B	C
3	3	2

Answer the following questions using Banker's algorithm

- What are the contents of need array?
 - Is the system is in the safe state give the safe sequence.
- b) Explain any four file operations
- c) Write a note on cloud computing system

Q4) Attempt any Two of the following.

[2×4=8]

- Explain the benefits or advantages of distributed systems.
- Explain any two deadlock prevention strategies.
- Explain sequential access & direct access methods of files.

Q5) Attempt any One of the following.

[1×3=3]

- What is total head movement for first-come first-served (FCFS) scheduling for the disk queue with requests for I/O to blocks on cylinders 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk head is initially at cylinder 53.
- Give a comparative study of Android OS and Apple IOS mobile operating systems.

