Total No. of Questions : 5]

SEAT No. :

PE-5513

[Total No. of Pages : 2

[6502]-601R
T.Y. B.Sc. (CS)
CS-361 : OPERATING SYSTEM - II
(Rev. 2019) (Semester - VI)

Time : 2 Hours] *[Max. Marks : 35*

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicates marks.***

Q1) **Attempt any eight of the following :** **[8 × 1 = 8]**

a) Write the names of any two disk allocation methods of diskspace.

b) List disk performance parameters.

c) What is cluster computer?

d) What is cloud computing?

e) List the different architectural styles of distributed operating systems.

f) What is kernel?

g) What is RISC in ARM architecture?

h) What is starvation?

i) List file system free space management techniques.

j) Define claim edge?

Q2) **Attempt any four of the following :** **[4 × 2 = 8]**

a) What is ARM?

b) Write the difference between SCAN & LOOK disk scheduling algorithms.

c) What are the golas of distributed system?

d) Explain features of mobile operating system.

e) List down the advantages and disadvantages of windows mobile OS.

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Q3) **Attempt any two of the following.** **[2 × 4 = 8]**

a) What is deadlock? Explain different ways of deadlock recovery.

b) Explain resource - allocation graph with example.

c) Explain access methods of file system management.

Q4) **Attempt any two of the following :** **[2 × 4 = 8]**

a) Explain the necessary conditions of deadlock with suitable example and diagram.

b) Consider following snapshot of the system. A, B, C, D are the resource types. Asnwer the following questions using Banker's algorithm.

	Allocation				Max				Total			
	A	B	C	D	A	B	C	D	A	B	C	D
P_0	0	0	1	2	0	0	1	2	1	5	2	0
P_1	1	0	0	0	1	7	5	0				
P_2	1	3	5	4	2	3	5	6				
P_3	0	6	3	2	0	6	5	2				
P_4	0	0	1	4	0	6	5	6				

i) What are the contents of Nee matrix/array?

ii) If the system is in the safe state, give the safe sequence.

c) Write a short note on directory structure.

Q5) **Attempt any ONE of the following :** **[1 × 3 = 3]**

a) Draw the labeled diagram of Disk Structure.

b) Differentiate between Android OS and iphone OS.

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