Hall Ticket No.: ☐☐☐☐☐☐☐☐☐☐

SRIT R20

SRINIVASA RAMANUJAN INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)
III B. Tech I Sem – Semester End Examinations – Regular – Dec 2022
OPERATING SYSTEMS
[R204GA05503]
(Computer Science and Engineering)

Time: 3 hours   **Max. Marks: 60**

PART-A
(Compulsory Question)
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1		Answer the following: (10 X 02 = 20 Marks)
	a)	Define System Call.
	b)	Draw PCB.
	c)	What is the purpose of reallocation Register?
	d)	What attributes are considered for designing the file structure for an Operating System?
	e)	Define Access Matrix.

PART-B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT-1

2	a)	Illustrate operating system operations with neat sketches.	[5M]
	b)	Explain in detail the role of Operating system as a resource Manager.	[5M]

(OR)

3	Illustrate various computing environments that need OS.	[10M]

UNIT-2

4	Construct a memory layout diagram for a C Program.	[10M]

(OR)

5	Define Cooperative Process. Illustrate Communication Models for IPC with a suitable example.	[10M]

UNIT-3

6	Given page reference string: 1,2,3,2,1,5,2,1,6,2,5,6,3,1,3,6,1,2,4,3. Compare the number of page faults for LRU, FIFO and Optimal page replacement algorithm.	[10M]

(OR)

7	Explain about the bankers algorithm for deadlock avoidance	[10M]

UNIT-4

8	Explain the different Disk scheduling algorithms with their comparisons	[10M]

(OR)

9	What is File system and what are the various File access methods? Explain.	[10M]

	UNIT-5	
10	Explain how Morris internet worm occurs with a suitable diagram.	**[10M]**
	(OR)	
11	Define Access control. Explain revocation of Access rights.	**[10M]**

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