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GIET UNIVERSITY, GUNUPUR – 765022

M. C. A (First Semester) Examinations, May- 2021

MCA20103 – Operating Systems

Time: 2 hrs

Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)

PART – A**(2 x 10 = 20 Marks)**Q.1. Answer *ALL* questions

- a. What is an Operating system?
- b. What is the advantage of Multiprogramming?
- c. Define logical address and physical address.
- d. Why the page sizes is always power of 2 in memory?
- e. Define Swapping.
- f. What is External Fragmentation?
- g. Explain the difference between paging and segmentation.
- h. What is thrashing?
- i. Define Bootstrap Program?
- j. List the various File Attributes?

PART – B**(6 x 5 = 30 Marks)**Answer ANY FIVE questions

Marks

2. Explain Multiprocessor systems and Parallel Systems. (6)
3. Explain Different type of system calls? (6)
4. Explain Paging in detail? (6)
5. Explain TLB. (6)
6. Consider the following segment table (6)

Segment Base Length

0 219 600

1 2300 14

2 90 100

3 1327 580

4 1952 96

What are the physical addresses for the following logical addresses?

(i) 0,430

(ii) 1,10

(iii) 2,500

(iv) 3,400

(v) 4,112

7. Write short notes on Dead lock and its characteristics? (6)
8. Explain Disk Scheduling in detail with example? (6)

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