

Code No: 812AG

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA II Semester Examinations, December - 2019****OPERATING SYSTEMS****Time: 3 Hours****Max. Marks: 60**

**Note:** This question paper contains two parts A and B.  
Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

**PART - A****5 × 4 Marks = 20**

- 1.a) What are the objectives of operating system? [4]
- b) What is process control block? [4]
- c) What is demand paging? [4]
- d) What is file system mounting? [4]
- e) What is access matrix? [4]

**PART - B****5 × 8 Marks = 40**

2. Distinguish between multi-programmed and time shared systems. [8]

**OR**

3. What are special purpose systems? Elaborate on them. [8]

4. How process synchronization is achieved in linux. [8]

**OR**

5. Explain multiprocessor and real time scheduling. [8]

6. Explain page replacement algorithms with examples. [8]

**OR**

7. Explain segmentation with paging memory management technique. [8]

8. Explain various file allocation methods. [8]

**OR**

9. Explain disk scheduling algorithms. [8]

10. What are deadlock recovery strategies? [8]

**OR**

11. What is a deadlock? What are resource allocation graphs? How resource allocation graphs are useful in identifying and avoiding a deadlock. [8]

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