

**Exam. Code : 105705**

**Subject Code : 1587**

**B.Sc. IT 5<sup>th</sup> Semester**  
**OPERATING SYSTEM**

**Paper-II**

Time Allowed—3 Hours]

[Maximum Marks—100

**Note :-** Attempt **five** questions in all. All questions carry equal marks.

1. Define operating system. Explain the various services provided by an operating system.
2. Explain the various pre-emptive process scheduling algorithms with the help of suitable examples.
3. Briefly discuss the various contiguous and non-contiguous memory management techniques.
4. Explain the various page replacement algorithms with the help of suitable examples.
5. Discuss the various disk scheduling algorithms.
6. Define the concepts of file. What are the attributes of a file ? What operations are performed on files ? Explain various file allocation methods with the help of examples.
7. Define deadlock. What do you mean by deadlock avoidance ? Discuss the Banker's algorithm in detail.
8. Write short notes on the following :
  - (a) Process Control Block
  - (b) Virtual memory
  - (c) Critical sections
  - (d) MFT versus MVT.