



RAN - 2111000606030001

**RAN-2111000606030001**

**B. Sc. (I. T.) (Sem. - VI) Examination March - 2025**

**Operating System (Paper - 603)**

**Time: 3 Hours ]**

**[ Total Marks: 70**

**સૂચના : / Instructions**

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
**Fill up strictly the details of signs on your answer book**

Name of the Examination:  
☛

Name of the Subject :  
☛

Subject Code No.:

Seat No.:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Student's Signature
---------------------

(2) Do as directed

**Q. 1. Answer in Short. (Any Seven)**

**14**

1. Define boot block.
2. What is a Page Fault?
3. Differentiate user and kernel variable.
4. What is compaction?
5. What is throughput?
6. What is a difference between internal and external fragmentation?
7. List out file Operations.
8. Explain the concept of Spooling in brief.
9. Explain Parallel System in brief.

**Q. 2. Answer the following.**

**14**

1. What is operating system? Discuss important functionalities of O.S.
2. What is deadlock? Explain banker's algorithm to avoid deadlock.

**OR**

2. Explain conditional and looping statement in UNIX with example.

**RAN-2111000606030001 ]**

**[ 1 ]**

**[ P.T.O. ]**

**P0451**

- Q. 3. Write a note on following (Any Two) 14**
1. Inter process Communication
  2. segmentation
  3. Explain Hard Disk Architecture and disk access time in detail.
- Q. 4. Write the following (Any Two) 14**
1. What is page fault? Explain steps to handle page fault.
  2. Explain process State table with PCB in detail.
  3. Explain SJF scheduling algorithm with proper example.
- Q. 5. Write a note on following 14**
1. grep utilities
  2. Threading and Multithreading
-