



**UNIVERSITY OF NORTH BENGAL**  
BCA Honours 3rd Semester Examination, 2020

**CC6-BACHELOR OF COMPUTER APPLICATION (32)**

**OPERATING SYSTEM**

Full Marks: 40

**ASSIGNMENT**

*The figures in the margin indicate full marks.*

**Answer any two questions from the following**

20×2 = 40

1. (a) What are the various functions of Operating System? Explain in brief. 10+10  
(b) Compare the Linux and Windows operating system.
  
2. Write short note on the following: 20
  - (a) Time Sharing Systems
  - (b) Multiprogramming Systems
  - (c) Parallel Systems
  - (d) Real Time Systems.
  
3. Write short note on the following: 20
  - (a) System calls and System programs
  - (b) Belady's Anomaly
  - (c) Segmentation with paging
  - (d) Physical and Virtual address space.
  
4. (a) What do you understand by Virtual Memory? How it can be implemented by Demand Paging? 10+10  
(b) What is the role of kernel in operating system?
  
5. (a) Discuss the methods for intrusion detection and virus protections. 10+10  
(b) Discuss the different user authentication mechanisms in detail.

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