



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

BCA Honours 3rd Semester Examination, 2021

CC6-BACHELOR OF COMPUTER APPLICATION (32)

OPERATING SYSTEM

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

Answer any five questions from the following

1×5 = 5

1. What is operating system?
2. What is process control block?
3. What is semaphore?
4. Distinguish between primary memory and secondary memory.
5. What do you mean by context switching?
6. Is there any difference between deadlock and starvation?
7. What is kernel?
8. What do you mean by virtual memory?

GROUP-B

Answer any three questions from the following

5×3 = 15

9. Define deadlock. Explain the necessary conditions for a deadlock to occur.
10. Explain the difference between internal and external memory fragmentation.
11. What is Belady's Anomaly? Explain with an example.
12. What is multiprogramming? How it is different from multitasking?
13. Explain SCAN and C-SCAN disk scheduling.

GROUP-C

Answer any *two* questions from the following

10×2=20

14. Explain any two page replacement algorithms with examples.
15. Discuss round robin (RR) and multilevel feedback queue scheduling algorithms.
16. Give the safety algorithm (to avoid deadlock) for finding out whether a system is in a safe state or not.
17. Write short notes on any *two*:
 - (a) Time sharing
 - (b) Multiprocessing
 - (c) Recovery from deadlock
 - (d) Paging and segmentation.

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