

S.No. 2025

12UCA08

(For the candidates admitted from 2012-2013 onwards)

B.C.A. DEGREE EXAMINATION, APRIL/MAY 2018.

Fourth Semester

Computer Applications

OPERATING SYSTEMS

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. List out the objectives of operating system.
2. What is the use of Timer?
3. What do you mean by Resource Allocation Graph?
4. What is Semaphore?
5. Define Logical Address.
6. What do you mean by Demand Paging?

7. Write down the four types of Scheduling.
8. What is meant by Seek time?
9. What is the use of File Organization?
10. Differentiate between Variable-length Spanned and Variable-length Unspanned blocking.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe about serial processing of operating system.
Or
(b) When to use switch process? Explain.
12. (a) What are the conditions for deadlock? Explain.
Or
(b) Discuss about the producer and consumer problem.
13. (a) Explain about logical organization.
Or
(b) Write short notes on inverted page table.

14. (a) Write short notes on long-term scheduling.

Or

- (b) Discuss about thread scheduling.

15. (a) Explain about the sequential file.

Or

- (b) What are the operations of directory? Explain.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss about time sharing system.
17. What is message passing? Explain about any two design issues of message passing.
18. Briefly explain about four page replacement algorithm.
19. Discuss in detail about I/O buffering.
20. Explain briefly about file sharing.