

(6 pages)

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B.C.A. (CBCS). DEGREE EXAMINATION,
APRIL 2014.

Sixth Semester

Computer Applications – Main

Paper IX – OPERATING SYSTEM

(For those who joined in July 2008 to 2011)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. System view of an operating system is a _____.
(a) Software (b) Hardware
(c) Resource allocator (d) None
2. _____ provides the interface between a process and the operating system.
(a) Procedures (b) System calls
(c) Protocols (d) None

3. The solution to load sharing is

- (a) Common ready queue
- (b) Process have its own ready queue
- (c) No ready queue
- (d) None

4. The message passing facility in windows 2000 is _____.

- (a) TCP (b) IP
- (c) LPC (d) FTP

5. _____ signifies the successful transaction.

- (a) Abort (b) Commit
- (c) Unlock (d) None

6. The system can allocate resource to each process is

- (a) Critical section (b) Entry section
- (c) Safe state (d) None



7. The CPU fetches instructions from memory according to the value of _____.
- (a) Register (b) Memory
- (c) Program counter (d) None
8. The separation of logical memory from physical memory is _____.
- (a) Flash memory (b) Cache memory
- (c) Virtual memory (d) Main memory
9. _____ is a sequence of bytes organized in to blocks understandable by the linker.
- (a) Source file (b) Executable file
- (c) Object file (d) Test file
10. _____ is waiting time for the disk to rotate the desired sector to the disk head.
- (a) Seek time (b) Rotational latency
- (c) Band width (d) None

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceeding 250 words.

11. (a) What is the main purpose of an operating system?

Or

- (b) What are the functions of system calls?

12. (a) Explain multiple processor scheduling.

Or

- (b) Explain the concept of buffering.

13. (a) Discuss how safe state avoid deadlock situation.

Or

- (b) Discuss bakery algorithm for critical section problem.

14. (a) Explain the concept of overlays.

Or

- (b) Explain second chance page replacement algorithm.

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15. (a) What are the attributes of a file?

Or

(b) Explain the architecture of SAN.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceeding 600 words.

16. (a) Discuss distributed systems.

Or

(b) Explain virtual machine architecture and its advantages.

17. (a) Explain deterministic modeling of algorithm evaluation with example.

Or

(b) Explain IPC facility in detail.

18. (a) Explain resource allocation graph in detail.

Or

(b) Explain any two classic problems of synchronization.

19. (a) Discuss the address translation architecture for Intel 80386.

Or

(b) Explain the concept of segmentation.

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20. (a) Discuss various file access methods.

Or

(b) Discuss the structure of a RAID.

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