

(6 pages)

Reg. No. :

Code No. : 6929

Sub. Code : HCAM 24

M.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2016.

Second Semester

Computer Applications

OPERATING SYSTEMS

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Fence register is used for _____.
(a) CPU protection (b) Memory protection
(c) File protection (d) All of the above
2. Which of the following is a service not supported by the Operating System?
(a) Protection (b) Accounting
(c) Compilation (d) I/O operation

3. A program in execution is called _____.
(a) process (b) instruction
(c) procedure (d) function

4. Which of the following is not a fundamental process state?
(a) ready (b) terminated
(c) executing (d) blocked

5. Locality of reference implies that the page reference being made by a process
(a) will always be to the page used in the previous page reference
(b) is likely to be the one of the pages used in the last few page reference
(c) will always be to one of the pages existing in memory
(d) will always lead to a page fault

6. Poor response time is usually caused by _____.
(a) Process busy
(b) High I/O rates
(c) High paging rates
(d) Any of the above

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7. Which scheduling policy is most suitable for a time shared operating system?
- Shortest job first
 - Elevator
 - Round Robin
 - First come and first serve
8. Which of the following system is always resident in machinery?
- Batch
 - Time sharing
 - Operating system
 - Controlling system
9. An incremental back up ———.
- should be done with each month
 - user more tapes
 - saves all files
 - saves only files that have recently changed
10. Files can have ———.
- read access
 - copy access
 - write access
 - all the above

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PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Define operating system. Discuss about the concept of OS as Resource Manager.

Or

- (b) List the differences between Multitasking and Multiprogramming.

12. (a) Discuss briefly about Process Control Block.

Or

- (b) Compare User Level and Kernel Level Thread.

13. (a) Explain about Contiguous Memory Allocation.

Or

- (b) Discuss about the concept of Dynamic Linking.

14. (a) Discuss about various process Scheduling Concepts.

Or

- (b) List the Criteria's available in Scheduling.

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[P.T.O.]



15. (a) Discuss various file operations in detail.

Or

- (b) Discuss in detail about i-node.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write in detail about Operating System Services.

Or

- (b) Explain the System Structure of Operating System.

17. (a) What are the requirements needed for implementing critical section problem? Explain.

Or

- (b) Explain the use of Banker's algorithm for Deadlock Avoidance with illustration.

18. (a) What are the major problems to implement demand paging? Discuss.

Or

- (b) Discuss about various page replacement strategies.

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19. (a) Discuss about the performance comparison of Scheduling Algorithms.

Or

- (b) Describe in detail about the logical structure of I/O function.

20. (a) Explain the various disk scheduling techniques.

Or

- (b) Explain the various file allocation methods.
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