

**ISLAMIAH COLLEGE [AUTONOMOUS], VANİYAMBADI
END SEMESTER EXAMINATIONS, NOVEMBER 2016**

Time : 3 Hrs

Max Marks : 75

Subject: Operating System Sub. Code: U3CS6001 / U3BC6001

**PART – A (10 X 2 = 20)
Answer ALL the Questions**

1. What is OS?
2. Explain system call?
3. What is process?
4. What is deadlock?
5. What is swapping?
6. What is paging?
7. What are the access methods?
8. What is disk structure?
9. What are the goals of protection?
10. What is cryptography?

**PART – B (5 X 5 = 25)
Answer ALL the Questions**

11. (a) Explain about multiprocessor system?
(OR)
(b) What are the system concepts?
12. (a) What are the process concepts?
(OR)
(b) What are the methods for handling deadlock?

13. (a) Explain paging?
(OR)
(b) Explain segmentation?
14. (a) Explain file concepts?
(OR)
(b) Explain disk scheduling?
15. (a) What are the domains of protection?
(OR)
(b) Explain about cryptography?

**PART – C (3 X 10 = 30)
Answer any THREE Questions**

16. Discuss the services of OS?
 17. Explain deadlock, deadlock prevention, deadlock avoidance, deadlock deduction & recovery?
 18. Explain about contiguous memory allocation?
 19. Explain about disk structure, disk scheduling, disk management and attachment?
 20. Explain about security problems?
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**PART – A (10 X 2 = 20)
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**PART – B (5 X 5 = 25)
Answer ALL the Questions**

11. (a) Explain about multiprocessor system?
(OR)
(b) What are the system concepts?
12. (a) What are the process concepts?
(OR)
(b) What are the methods for handling deadlock?

13. (a) Explain paging?
(OR)
(b) Explain segmentation?
14. (a) Explain file concepts?
(OR)
(b) Explain disk scheduling?
15. (a) What are the domains of protection?
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**PART – C (3 X 10 = 30)
Answer any THREE Questions**

16. Discuss the services of OS?
 17. Explain deadlock, deadlock prevention, deadlock avoidance, deadlock deduction & recovery?
 18. Explain about contiguous memory allocation?
 19. Explain about disk structure, disk scheduling, disk management and attachment?
 20. Explain about security problems?
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ISLAMIAH COLLEGE (AUTONOMOUS), VANIYAMBADI		
END SEMESTER EXAMINATIONS		
UOBC4002		APRIL/MAY-2017
OPERATING SYSTEM		
Time: 3 Hrs		Max.Marks:75

PART - A (10 X 2 = 20)
Answer ALL the Questions

1. Define clustered systems.
2. What is a source file?
3. List out the different process states.
4. Define Aging.
5. When does a deadlock occur?
6. What is a safe state?
7. Define physical address.
8. Which page replacement algorithm does not suffer from belady's anomaly?
9. List the disk scheduling algorithms.
10. Define rotational latency.

PART - B (5 X 5 = 25)
Answer ALL the Questions

11. (a) Write a short note on multiprocessor systems and distributed Systems.
(OR)
(b) Write a short note on Operating System services.
12. (a) Explain the scheduling criteria.
(OR)
(b) Write briefly on process control block.

13. (a) Explain in details about scheduling methods.
(OR)
(b) What are the issues associated with resource preemption?
14. (a) Define paging. Explain the advantage of shared pages.
(OR)
(b) Explain demand paging.
15. (a) Find the total head movement for the following requests in FCFS and SSTF scheduling: 98,183,37,122,14,124,65,67
(OR)
(b) Describe the UNIX operating system features.

PART - C (3 X 10 = 30)
Answer any THREE Questions

16. What are the various directory structures? Explain in detail.
17. Describe process scheduling in detail.
18. Explain deadlock prevention.
19. Elaborate the basic concepts of demand paging.
20. What are the different types of files in UNIX? Describe the UNIX operating system features.

ISLAMIAH COLLEGE (AUTONOMOUS), VANIYAMBADI		
END SEMESTER EXAMINATIONS		
U0CS5001		APRIL/MAY-2017
OPERATING SYSTEM		
Time: 3 Hrs		Max.Marks:75

PART - A (10 X 2 = 20)
Answer ALL the Questions

1. What is operating system?
2. Define Time Sharing.
3. Define Bit Vector.
4. What is Context Switch?
5. Define Deadlock.
6. What is Paging?
7. Define Virtual Memory.
8. Define Access Matrix.
9. List out the different types of Access Methods.
10. Define Signal and its Types.

PART - B (5 X 5 = 25)
Answer ALL the Questions

11. (a) Explain about Distributed Systems.
(OR)
(b) Explain Various File Operations.
12. (a) Discuss FCFS Scheduling.
(OR)
(b) Explain about Linked Allocation Method.

13. (a) Explain in detail about Process.
(OR)
(b) Explain about Scheduling Methods
14. (a) Discuss about LRU Algorithm.
(OR)
(b) Explain about Paging.
15. (a) Explain about Protection Domain.
(OR)
(b) Explain about File Manipulation in UNIX.

PART - C (3 X 10 = 30)
Answer any THREE Questions

16. Explain in detail about Access Method.
17. Explain about Free Space Management
18. Discuss about Deadlock Prevention.
19. Explain in detail about Segmentation.
20. Explain out File Manipulation in UNIX

ISLAMIAH COLLEGE [AUTONOMOUS], VANIYAMBADI
END SEMESTER EXAMINATIONS – APRIL - 2017

Time: 3 Hrs

Max. Marks: 75

Subject: Operating System

Sub. Code: U3CS6001 / U3BC6001 / U3SW6001

PART - A (10 X 2 = 20)

Answer ALL Questions

1. What is the Kernel?
2. What is Spooling?
3. What is Dispatcher?
4. What is Critical Section problem?
5. What do you mean by Compaction?
6. What is a Pure Demand Paging?
7. What is Belady's Anomaly?
8. Define page fault frequency.
9. Provide examples of at least three program threats.
10. What is the name of a commonly-used cryptographic protocol?

PART - B (5 X 5 = 25)

Answer ALL Questions

11. (a) Explain Distributed Systems with examples.
(OR)
(b) Discuss any five Operating System Services.
12. (a) Write short notes on Message-Passing Systems.
(OR)
(b) Explain various Scheduling Criteria
13. (a) Differentiate paging and segmentation.
(OR)
(b) Explain FIFO page replacement algorithm with an example.
14. (a) Explain Disk Management in detail?
(OR)
(b) Differentiate between FCFS and SSTF disk scheduling algorithm.
15. (a) List any three goals of Protection.
(OR)
(b) What is Bio-metrics? Explain with respect to System Security.

PART - C (3 X 10 = 30)

Answer any THREE Questions

16. Explain System Calls in detail.
 17. Explain Deadlock Detection with example.
 18. Explain Demand Paging with illustrative example.
 19. Explain any three file allocation methods..
 20. Write notes on a) Levels of Security b) Encrypted passwords.
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ISLAMIAH COLLEGE [AUTONOMOUS], VANIAMBADI
ARREAR EXAMINATIONS, OCTOBER - 2018

Time : 3 Hrs

Max Marks : 75

Subject: Operating System

Sub. Code: U3SW6001 / U3CS6001 / U3BC6001

PART – A (10 X 2 = 20)
Answer ALL Questions

1. What is OS?
2. Explain system call?
3. What is process?
4. What is deadlock?
5. What do you mean by Compaction?
6. What is a Pure Demand Paging?
7. What is Belady's Anomaly?
8. Define page fault frequency.
9. Provide examples of at least three program threats.
10. What is cryptography?

PART – B (5 X 5 = 25)
Answer ALL Questions

11. (a) Explain about multiprocessor system?
(Or)
(b) Explain Distributed Systems with examples.
12. (a) What are the process concepts?

(Or)

- (b) What are the methods for handling deadlock?

13. (a) Explain paging?

(Or)

- (b) Differentiate paging and segmentation.

14. (a) Differentiate between FCFS and SSTF disk scheduling algorithm.

(Or)

- (b) Explain disk scheduling?

15. (a) What are the domains of protection?

(Or)

- (b) Explain about cryptography?

PART – C (3 X 10 = 30)
Answer any THREE Questions

16. Discuss the services of OS?
17. Explain Deadlock Detection with example.
18. Explain about contiguous memory allocation?
19. Explain any three file allocation methods.
20. Explain about security problems?

ISLAMIAH COLLEGE (AUTONOMOUS), VANIYAMBADI

ARREAR EXAMINATIONS – NOVEMBER – 2018

Time: 3 Hrs.

Max. Marks: 75

Subject: Operating System

Subject Code: U5CC6003

PART- A (10 X 2 = 20)

Answer ALL Questions

1. Define the term Operating System.
2. Distinguish Mainframe systems with Desktop systems.
3. What is mean by process?
4. Define IPC.
5. Define Swapping.
6. What is CMA?
7. Name few Allocation Methods.
8. Write about Directory Structure.
9. What is the Goal of Protection?
10. Define Cryptography.

PART – B (5 X 5 = 25)

Answer ALL Questions

11. (a) Briefly explain Mainframe systems
(Or)
(b) Discuss Multiprocessor systems.
12. (a) Describe Operations on process
(Or)

(b) Write notes on Cooperating processes.

13. (a) Briefly explain Paging.

(Or)

(b) Give notes about Segmentation

14. (a) Elaborate Free Space Management.

(Or)

(b) Briefly explain Access Methods.

15. (a) Write note on Domain of protection.

(Or)

(b) Describe Implementation of Access.

PART – C (3 X 10 = 30)

Answer any THREE Questions

16. Write notes on:

- (i) Operating System Services
- (ii) System Calls

17. Explain in detail about Dead Locks.

18. Discuss Demand Paging and Page Replacement.

19. Elaborate Disk Scheduling and Disk Management in detail.

20. Discuss the security problems and user authentication.

ISLAMIAH COLLEGE [AUTONOMOUS] - VANIYAMBADI
END SEMESTER EXAMINATIONS, APRIL-2019
U5CC6003: Operating Systems

TIME: 3 Hrs

MAX. 75 MARKS

Class: III B.Sc (CS, SW) & III B.C.A

Semester VI

PART-A (10 X 2 = 20 MARKS)

Answer ALL Questions

1. What are the three main purposes of an operating system?
2. List of any three examples of Operating System.
3. Define preemptive and non-preemptive scheduling.
4. What is an IPC?
5. When does the page fault occur?
6. What is swapping?
7. List four common operations on files?
8. How direct access performed on a file?
9. What is session hijacking?
10. What is Vulnerability?

PART-B (5 X 5 = 25 MARKS)

Answer ALL Questions

11. (a). What is the purpose of the command interpreter? Why is it usually separate from the kernel?
(Or)
(b). What are the tradeoffs inherent in handheld computers?
12. (a) Write a program for IPC using message queues.
(Or)
(b)What are the CPU scheduling algorithm criteria?

13. (a) A certain computer provides its users with a virtual-memory space of 2^{32} bytes. The computer has 2^{18} bytes of physical memory. The virtual memory is implemented by paging, and the page size is 4,096 bytes. A user process generates the virtual address 11123456. Explain how the system establishes the corresponding physical location. Distinguish between software and hardware operations.

(Or)

- (b) Define the virtual memory? What are its advantages?

14. (a) Explain operations that can be performed on file.

(Or)

- (b)What important feature does an acyclic graph directory structure have that is missing from a tree structured directory?

15. (a) What are the main differences between capability lists and access lists?

(Or)

- (b) Discuss with examples of at least three program threats.

PART-C (3 X 10 = 30 MARKS)

Answer any THREE Questions

16. What is the main difficulty that a programmer must overcome in writing an operating system for a real-time environment?
17. Assume you have the following jobs to execute with one processor, with the jobs arriving in the order listed here. Use FCFS, SJF and Priority non-pre-emptive scheduling algorithm.
 - a) Create a Gantt (timeline) chart illustrating the execution of these processes?
 - b) What is the average turnaround time, average waiting time for the processes?

Processes	Execution Time(millisecons)	Priority
P1	80	2
P2	20	1
P3	10	3
P4	20	5
P5	50	4

18. Consider the following page reference string:

1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6

Find the number of page faults in the following replacements if frames =5?

(i) LRU Page Replacement (ii) FIFO Page Replacement (iii) Optimal Page Replacement

19. Consider a disk pack with 16 surfaces, 128 tracks per surface and 256 sectors per track. 512 bytes of data are stored in a bit serial manner in a sector. Find the capacity of the disk and the number of bits required to specify a particular sector in the disk.
20. Discuss Auditing, Accounting, and Logging as potential tools in a security system.

**ISLAMIAH COLLEGE (AUTONOMOUS), VANIYAMBADI
END SEMESTER EXAMINATIONS, APRIL – 2019**

Time: 3 Hrs

Max. Marks: 75

Subject: Operating System

Sub. Code: U0BC4002

**PART – A (10 X 2 = 20)
Answer ALL the Questions**

1. Define clustered systems
2. What is an object file?
3. List out the different process states.
4. Define turnaround time.
5. When does a deadlock occur?
6. What is deadlock prevention?
7. Define physical address.
8. What is paging?
9. List the disk scheduling algorithms.
10. Define rotational latency.

**PART – B (5 X 5 = 25)
Answer ALL the Questions**

11. (a) Discuss about the real time system.
(Or)
(b) Explain bit vector with an example.
12. (a) Explain the scheduling criteria.
(Or)
(b) Define semaphore. Explain.

21.

13. (a) Explain the method for handling dead locks.
(Or)
(b) What are the issues associated with resource preemption?
14. (a) Write short notes on segmentation.
(Or)
(b) Explain demand paging.
15. (a) Explain Disk structure.
(Or)
(b) Write a short note on disk structure.

**PART – C (3 X 10 = 30)
Answer Any THREE Questions**

16. What are the various directory structures? Explain in detail.
17. Explain process scheduling in detail.
18. Explain deadlock prevention.
19. Elaborate the page replacement algorithms in detail.
20. Explain various disk scheduling in detail.

ISLAMIAH COLLEGE [AUTONOMOUS] - VANIYAMBADI
END SEMESTER EXAMINATIONS APRIL-2019

Time: 3 Hrs

Max. 75 Marks

Subject: Operating System

Subject Code: U0CS5001

PART - A – (2×10 = 20)

Answer ALL the Questions

1. Define Multiprogramming.
2. Give the different File Access methods.
3. What is Context Switch?
4. Define seek time and Rotational Latency.
5. Define Dead Lock.
6. State any two necessary conditions for a Deadlock to occur.
7. What is a FIFO algorithm?
8. Define Hit ratio.
9. Give the two goals of protection.
10. List the items on which the authentication is based.

PART – B (5 X 5 = 25)

Answer ALL the Questions

11. a) Explain about Personal Computer.
Or
b) Explain Various File Operations.
12. a) Discuss SSTs Scheduling.
Or
b) Explain about Linked Allocation Method.

13. a) Explain in detail about Process Control Block
Or
b) Explain about Scheduling Methods

14. a) Discuss about FIFO Algorithm.
Or
b) Explain about Paging.

15. a) Explain about Protection Domain.
Or
b) Explain about File Manipulation in UNIX.

PART - C (3 X 10 = 30)

Answer any THREE Questions

16. Discuss about the Tightly coupled and Loosely coupled systems.
17. Explain about Free Space Management
18. Explain deadlock avoidance algorithm.
19. Discuss about the Paging mechanism used in the operating system.
20. Discuss about shell commands in UNIX

ISLAMIAH COLLEGE [AUTONOMOUS], VANİYAMBADI

END SEMESTER EXAMINATIONS – APRIL – 2019

Time: 3 Hrs

Max. Marks: 75

Subject: Operating Systems

Subject Code: U3CS6001 / U3BC6001 / U3SW6001

PART - A (10 X 2 = 20)
Answer ALL the Questions

1. Define operating system.
2. Expand EEPROM.
3. What is scheduling?
4. Define task control block.
5. What is first fit?
6. Define frames?
7. What is file?
8. Define truncating.
9. What is UNIX?
10. Define authentication.

PART – B (5X5=25)
Answer ALL the Questions

11. a) Discuss about main frame system.
(Or)
b) Write down clustered system.
12. a) Explain about process concept.
(Or)
b) Elaborate scheduling criteria.

13. a) What is swapping? Explain.
(Or)
b) Elucidate basic method of paging.
14. a) List out file attributes.
(Or)
b) Discuss about file operations.
15. a) Explain about goals of protection.
(Or)
b) Discuss about domain structure.

PART – C (3X10=30)
Answer any THREE Questions

16. Briefly explain about types of system calls.
17. Discuss about first come, first-served scheduling.
18. Explain about contiguous memory allocation.
19. Write down directory structure.
20. Explain about implementation of access matrix.

U5CS6003 / U5CC6003 : OPERATING SYSTEMS
PART-A (10 X 2 = 20 MARKS)
Answer ALL Questions

1. What is Client and Server machine?
2. List of any three examples of Operating System.
3. Is it possible to have a deadlock involving only one process? Justify.
4. How to recover from deadlock state?
5. What are the advantages of using demand paging?
6. What are the differences between pager and swapper?
7. What are the disadvantages of a single level directory structure?
8. Where Inode of a file, Inode Table and FAT get stored in the disk?
9. What is the benefit of using role-based access control?
10. What is known as sandbox?

PART-B (5 X 5 = 25 MARKS)
Answer ALL Questions

11. (a). When is it appropriate for the operating system to waste resources?
(Or)
(b). What are the tradeoffs inherent in handheld computers?
12. (a) What is scheduling? What criteria affects the scheduler's performance?
(Or)

PART-C (3 X 10 = 30 MARKS)
Answer any THREE Questions

16. What are the three major activities of an operating system in regard to secondary-storage management?
17. Consider the following snapshot of a system:

	<u>Allocation</u>	<u>Max</u>	<u>Available</u>
	ABCD	ABCD	ABCD
P_0	0012	0012	1520
P_1	1000	1750	
P_2	1354	2356	
P_3	0632	0652	
P_4	0014	0656	

Answer the following questions using the banker's algorithm:

- a. What is the content of the matrix Need?
 - b. Is the system in a safe state?
 - c. If a request from process P_1 arrives for (0,4,2,0), can the request be granted immediately?
18. Describe the following allocation algorithms:
a. First fit b. Best fit c. Worst fit
 19. Discuss briefly swap-space management with an example.
 20. How are the access-matrix facility and the role-based access-control facility similar? How do they differ?

- (b) What are the benefits and the detriments of each of the following?
 - a. Automatic and explicit buffering
 - b. Send by copy and send by reference
 - c. Fixed-sized and variable-sized messages

13. (a) Describe a mechanism by which one segment could belong to the address space of two different processes.

(Or)

- (b) Consider the reference string: 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6. How many page fault occurs using LRU replacement if there are three free frames?

14. (a) Consider a system where free space is kept in a free-space list.

- a) Suppose that pointer to the free-space list is lost. Can the system reconstruct the free-space list?
- b) Suggest a scheme to ensure that the pointer is never lost as a result of memory failure.

(Or)

- (b). Draw the MS-DOS disk layout and explain.

15. (a) What is the difference between mandatory access control and discretionary access control?

25-26 / 54
(Or)

- (b) What are the main differences between capability lists and access lists?

**ISLAMIAH COLLEGE [AUTONOMOUS], VANIAMBADI
END SEMESTER EXAMINATIONS, DECEMBER - 2020**

Time: 3 Hrs

Max Marks : 75

Subject: Operating System

Sub. Code: U3CS6001 / U3BC6001

PART – A (10 X 2 = 20)

Answer ALL the Questions

1. What is OS?
2. Explain system call?
3. What is process?
4. What is deadlock?
5. What is swapping?
6. What is paging?
7. What are the access methods?
8. What is disk structure?
9. What are the goals of protection?
10. What is cryptography?

PART – B (5 X 5 = 25)

Answer ALL the Questions

11. (a) Explain about multiprocessor system?
(OR)
(b) What are the system concepts?
12. (a) What are the process concepts?
(OR)
(b) What are the methods for handling deadlock?

13. (a) Explain paging?

(OR)

- (b) Explain segmentation?

14. (a) Explain file concepts?

(OR)

- (b) Explain disk scheduling?

15. (a) What are the domains of protection?

(OR)

- (b) Explain about cryptography?

PART – C (3 X 10 = 30)

Answer any THREE Questions

16. Discuss the services of OS?
 17. Explain deadlock, deadlock prevention, deadlock avoidance, deadlock deduction & recovery?
 18. Explain about contiguous memory allocation?
 19. Explain about disk structure, disk scheduling, disk management and attachment?
 20. Explain about security problems?
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ISLAMIAH COLLEGE [AUTONOMOUS] -VANIYAMBADI
END SEMESTER EXAMINATIONS MAY - 2020

Time: 3 Hrs

Max. 75 Marks

Subject: Operating Systems

Sub. Code: U5CC6003 / U5CS6003 / U5BC6003 / U5SW6003

PART - A (10 X 2 = 20)

Answer ALL the Questions

1. What is TSR?
2. List various attributes of file.
3. Why does the computer must keep several processes in main memory?
4. When process is marked as blocked for IO?
5. If the no of pages in a 32 bit machine is 8 KB then what is the size of the page table?
6. How many page fault occurs in 1, 4, 1, 6, 1, 6, 1 if the frame size is 3, using FIFO algorithm?
7. What is a sector, a cylinder?
8. What is the need of controlled access?
9. What is a hash function?
10. What are encryption standards?

PART - B (5 X 5 = 25)

Answer ALL the Questions

11. (a). List the four steps needed to run a program on a completely dedicated machine.
(Or)
(b). Define tightly coupled, loosely coupled systems.
12. (a) Write a program for IPC using message queues.
(Or)
(b) What are the CPU scheduling algorithm criterias?
13. (a) What are the principles of the following replacement algorithms?
a) FIFO. b) LRU.
(Or)
(b) Write a short note on Belady's anomaly.

14. (a) Write a short note on file access with its command and security concerns.

(Or)

- (b). List advantages and disadvantages of a contiguous disk block allocation scheme?

15. (a) What is the problem when using a global table to represent an access matrix?

(Or)

- (b) Explain Stack and Buffer Overflow attack.

PART - C (3 X 10 = 30)

Answer any THREE Questions

16. What are the five major activities of an operating system in regard to process management?

17. Find the average waiting time ,turnaround time using

(1) Preemptive short-job first (2) Non-preemptive short-job first?

Process	P1	P2	P3	P4	P5
Burst time	5	13	8	4	10
Arrival time	2	3	0	5	1

18. How many page fault occurs for the reference string using FIFO and LRU algorithm with four free frames.1, 2, 3, 4, 5, 3, 4, 1, 6, 7, 8, 7, 8, 9, 7, 8, 9, 5, 4, 5, 4, 2.

19. Explain the structure used to manage all information of file in UNIX operating system.

20. How are the access-matrix facility and the role-based access-control facility similar? How do they differ?

**Due to COVID-19 Pandemic
Sanitize Your Hands
Wear Face Mask
Follow Social Distancing Norms**

**ISLAMIAH COLLEGE [AUTONOMOUS], VANIYAMBADI
END SEMESTER EXAMINATIONS – MAY - 2020**

Time: 3 Hrs

Max. Marks: 75

Subject: Operating System

Sub. Code: U3CS6001 / U3SW6001 / U3BC6001

**PART - A (10 X 2 = 20)
Answer ALL the Questions**

1. Define operating system.
2. What is Dual –Mode Operation?
3. What is a Thread?
4. What is Preemptive and Non-Preemptive scheduling?
5. Define thrashing and page fault?
6. What is a Pure Demand Paging?
7. Define UFD and MFD.
8. What are the different file allocation methods?
9. Define UNIX.
10. Define DMZ.

**PART - B (5 X 5 = 25)
Answer ALL the Questions**

11. (a) How does multiprogramming increase CPU utilization?
(OR)
(b) Write down clustered system.
12. (a) Write short notes on PCB.
(OR)
(b) Explain Synchronization with example

13. (a) Explain the concept of Virtual Memory.
(OR)
(b) Explain least recently used page replacement algorithm.
14. (a) List out file attributes.
(OR)
(b) Write a note on different file allocation methods.
15. (a) Explain the goals of protection.
(OR)
(b) Explain any five password vulnerabilities.

**PART - C (3 X 10 = 30)
Answer any THREE Questions**

16. Explain the Types of System Calls in detail.
17. Explain RAG in detail.
18. Explain why fragmentation does not occur in paged system?
19. Write down directory structure.
20. Describe access matrix in detail.

**Due to COVID-19 Pandemic
Sanitize Your Hands
Wear Face Mask
Follow Social Distancing Norms**

**ISLAMIAH COLLEGE [AUTONOMOUS], VANIYAMBADI
END SEMESTER EXAMINATIONS, JUNE - 2022**

Time: 3 Hrs

Max. Marks: 75

Subject: Operating Systems

Subject Code: U8CC6003

**PART - A (10 X 2 = 20)
Answer ALL the Questions**

1. Define Kernel.
2. What is mean by system utilities
3. What is mean by a process?
4. Which situation is called a race condition?
5. What type of allocation is called as first fit?
6. What is mean by sparse spaces?
7. Define Transfer rate.
8. What is mean by boot sector?
9. Define Logic bomb.
10. Define cryptography

**PART - B (5 X 5 = 25)
Answer ALL the Questions**

11. (a) explain any two types of system calls
(Or)
(b) Give brief notes on Operating system services
12. (a) Write short note on Process control block
(Or)
(b) Explain the Peterson's solution for critical section problem

13. (a) Write short note on segmentation
(Or)
(b) Explain the basic concepts of Demand paging

14. (a) Write short note on magnetic disks
(Or)
(b) Explain in detail Free space management in memory

15. (a) How to implement access matrix? Explain
(Or)
(b) Explain cryptography as a security tool

**PART - C (3 X 10 = 30)
Answer any THREE Questions**

16. Explain various types of operating system services
17. How to avoid deadlocks? Explain with algorithm.
18. Explain with algorithm Page replacement.
19. Explain in detail disk scheduling
20. Explain Program Threats

**ISLAMIAH COLLEGE [AUTONOMOUS], VANIYAMBADI
END SEMESTER EXAMINATIONS, FEBRUARY - 2022**

Time: 3 Hrs

Max. 75 Marks

Subject: Operating System

Sub Code: U3BC6001

**PART-A (10 X 2 = 20)
Answer ALL Questions**

1. Define Time sharing System
2. What is Spooling?
3. What do you meant by file?
4. Compare memory with Virtual memory.
5. List the different types of access methods.
6. List the advantage of paged memory management
7. Define dead lock.
8. Describe the term process.
9. What is Shell?
10. What is security?

**PART-B (5 X 5 = 25)
Answer ALL Questions**

- 11 . a) Describe real time operating system
(Or)
b) Explain distributed operating system.
12. a) Discuss partitioned memory management scheme
(Or)
b) Write detail notes on segmentation

- 13 a) Write a detail note about FAT
(Or)
b) Explain free space management
14. a) Describe Process control block
(Or)
b) Briefly explain RR scheduling algorithm
- 15.a) Explain I-node in Unix.
(Or)
b) Briefly explain access matrix.

**PART-C (3 X 10 = 30)
Answer any THREE Questions**

16. Discuss about disk scheduling algorithms
17. Elaborate in details indexed allocation methods
18. Describe in detail about Demand memory management
19. Drive various CPU scheduling algorithms in detail.
20. Enumerate various security threads