Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1) Write a C Menu driven Program to implement following functionality

a) Accept Available

b) Display Allocation, Max

c) Display the contents of need matrix

d) Display Available

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	2	3	2	9	7	5	3	3	2
P1	4	0	0	5	2	2			
P2	5	0	4	1	0	4			
P3	4	3	3	4	4	4			
P4	2	2	4	6	5	5			

[15]

Q.2 Write a simulation program for disk scheduling using FCFS algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

55, 58, 39, 18, 90, 160, 150, 38, 184

Start Head Position: 50

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Linked file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Exit

[15]

Q.2 Write an MPI program to calculate sum of randomly generated 1000 numbers (stored in array) on a cluster [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance. Consider the following snapshot of system, A, B, C and D is the resource type.

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

a) Calculate and display the content of need matrix?

b) Is the system in safe state? If display the safe sequence.

[15]

Q.2 Write an MPI program to calculate sum and average of randomly generated 1000 numbers (stored in array) on a cluster [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Implement the Menu driven Banker's algorithm for accepting Allocation, Max fromuser.

a) Accept Available
b) Display Allocation, Max
c) Find Need and display It,
d) Display Available

Consider the system with 3 resources types A,B, and C with 7,2,6 instances respectively. Consider the following snapshot:

Process	Allocation			Request		
	A	B	C	A	B	C
P0	0	1	0	0	0	0
P1	4	0	0	5	2	2
P2	5	0	4	1	0	4
P3	4	3	3	4	4	4
P4	2	2	4	6	5	5

[15]

Q.2 Write a simulation program for disk scheduling using SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

86, 147, 91, 170, 95, 130, 102, 70
Starting Head position= 125
Direction: Left

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Consider a system with ‘m’ processes and ‘n’ resource types. Accept number of instances for every resource type. For each process accept the allocation and maximum requirement matrices. Write a program to display the contents of need matrix and to check if the given request of a process can be granted immediately or not [15]

Q.2 Write an MPI program to find the max number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Linked file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Exit

[15]

Q.2 Write a simulation program for disk scheduling using C-SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments..

80, 150, 60,135, 40, 35, 170
Starting Head Position: 70
Direction: Right [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Consider the following snapshot of the system.

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	2	0	0	1	4	2	1	2	3	3	2	1
P1	3	1	2	1	5	2	5	2				
P2	2	1	0	3	2	3	1	6				
P3	1	3	1	2	1	4	2	4				
P4	1	4	3	2	3	6	6	5				

Using Resource –Request algorithm to Check whether the current system is in safe state or not [15]

Q.2 Write a simulation program for disk scheduling using SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

82, 170, 43, 140, 24, 16, 190
Starting Head Position: 50
Direction: Right

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Contiguous file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned above and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Exit [15]

Q.2 Write a simulation program for disk scheduling using SSTF algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

186, 89, 44, 70, 102, 22, 51, 124
Start Head Position: 70 [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1. Consider the following snapshot of system, A, B, C, D is the resource type.

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

Using Resource –Request algorithm to Check whether the current system is in safe state or not . [15]

Q.2 Write a simulation program for disk scheduling using LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments. [15]

176, 79, 34, 60, 92, 11, 41, 114
Starting Head Position: 65
Direction: Left

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to calculate sum and average of randomly generated 1000 numbers (stored in array) on a cluster

[15]

Q.2 Write a simulation program for disk scheduling using C-SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

33, 99, 142, 52, 197, 79, 46, 65
Start Head Position: 72
Direction: Left [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance. the following snapshot of system, A, B, C and D are the resource type.

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	0	1	0	0	0	0	0	0	0
P1	2	0	0	2	0	2			
P2	3	0	3	0	0	0			
P3	2	1	1	1	0	0			
P4	0	0	2	0	0	2			

Implement the following Menu.

a) Accept Available
b) Display Allocation, Max
c) Display the contents of need matrix
d) Display Available [15]

Q.2 Write an MPI program to find the min number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to calculate sum and average randomly generated 1000 numbers (stored in array) on a cluster. [15]

Q.2 Write a simulation program for disk scheduling using C-LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.
23, 89, 132, 42, 187, 69, 36, 55
Start Head Position: 40
Direction: Right

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance.The following snapshot of system, A, B, C and D are the resource type.

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	0	1	0	0	0	0	0	0	0
P1	2	0	0	2	0	2			
P2	3	0	3	0	0	0			
P3	2	1	1	1	0	0			
P4	0	0	2	0	0	2			

a) Calculate and display the content of need matrix?

b) Is the system in safe state? If display the safe sequence. [15]

Q.2 Write a simulation program for disk scheduling using SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

176, 79, 34, 60, 92, 11, 41, 114
Starting Head Position: 65
Direction: Left [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Sequential (Contiguous) file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option.

- Show Bit Vector
- Show Directory
- Delete File
- Exit [15]

Q.2 Write a simulation program for disk scheduling using SSTF algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

55, 58, 39, 18, 90, 160, 150, 38, 184

Start Head Position: 50

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Linked file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Exit [15]

Q.2 Write a simulation program for disk scheduling using C-SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.. [15]

80, 150, 60,135, 40, 35, 170
Starting Head Position: 70
Direction: Right

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Sequential (Contiguous) file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option

- Show Bit Vector
- Create New File
- Show Directory
- Exit [15]

Q.2 Write an MPI program to find the min number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Indexed file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned above and implement each option.

- Show Bit Vector
- Show Directory
- Delete Already File
- Exit [15]

Q.2 Write a simulation program for disk scheduling using LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

23, 89, 132, 42, 187, 69, 36, 55

Start Head Position: 40

Direction: Left [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a program to simulate Indexed file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned above and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Delete File
- Exit [15]

Q.2 Write a simulation program for disk scheduling using SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

33, 99, 142, 52, 197, 79, 46, 65
Start Head Position: 72
Direction: Right [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance. Consider the following snapshot of system, A, B, C and D is the resource type.

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	3	2	4	6	5	4	4	3	4	4	2
P1	1	2	0	1	4	4	4	4				
P2	0	0	0	0	0	0	1	2				
P3	3	3	2	2	3	9	3	4				
P4	1	4	3	2	2	5	3	3				
P5	2	4	1	4	4	6	3	4				

a) Calculate and display the content of need matrix?

b) Is the system in safe state? If display the safe sequence.

[15]

Q.2 Write a simulation program for disk scheduling using C-SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

23, 89, 132, 42, 187, 69, 36, 55

Start Head Position: 40

Direction: Left

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a simulation program for disk scheduling using SCAN algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.
33, 99, 142, 52, 197, 79, 46, 65
Start Head Position: 72
Direction: User defined

[15]

Q.2 Write an MPI program to find the max number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a simulation program for disk scheduling using FCFS algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

55, 58, 39, 18, 90, 160, 150, 38, 184

Start Head Position: 50

[15]

Q.2 Write an MPI program to calculate sum of all even randomly generated 1000 numbers (stored in array) on a cluster [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to calculate sum of all odd randomly generated 1000 numbers (stored in array) on a cluster. [15]

Q.2 Write a program to simulate Sequential (Contiguous) file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option

- Show Bit Vector
- Delete already created file
- Exit [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Consider a system with ‘m’ processes and ‘n’ resource types. Accept number of instances for every resource type. For each process accept the allocation and maximum requirement matrices. Write a program to display the contents of need matrix and to check if the given request of a process can be granted immediately or not

[15]

Q.2 Write a simulation program for disk scheduling using SSTF algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

24, 90, 133, 43, 188, 70, 37, 55

Start Head Position: 58

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to calculate sum of all odd randomly generated 1000 numbers (stored in array) on a cluster. [15]

Q.2 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance.The following snapshot of system, A, B, C and D are the resource type.

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	0	1	0	0	0	0	0	0	0
P1	2	0	0	2	0	2			
P2	3	0	3	0	0	0			
P3	2	1	1	1	0	0			
P4	0	0	2	0	0	2			

a) Calculate and display the content of need matrix?
b) Is the system in safe state? If display the safe sequence. [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a simulation program for disk scheduling using LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

86, 147, 91, 170, 95, 130, 102, 70
Starting Head position= 125
Direction: User Defined

[15]

Q.2 Write a program to simulate Linked file allocation method. Assume disk with n number of blocks. Give value of n as input. Randomly mark some block as allocated and accordingly maintain the list of free blocks Write menu driver program with menu options as mentioned below and implement each option.

- Show Bit Vector
- Create New File
- Show Directory
- Exit [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a C program to simulate Banker's algorithm for the purpose of deadlock avoidance. Consider the following snapshot of system, A, B, C and D is the resource type.

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

a) Calculate and display the content of need matrix?

b) Is the system in safe state? If display the safe sequence. [15]

Q.2 Write a simulation program for disk scheduling using FCFS algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

56, 59, 40, 19, 91, 161, 151, 39, 185

Start Head Position: 48

[15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a simulation program for disk scheduling using LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

176, 79, 34, 60, 92, 11, 41, 114
Starting Head Position: 65
Direction: Right

[15]

Q.2 Write an MPI program to find the min number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

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CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write a simulation program for disk scheduling using C-LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

56, 59, 40, 19, 91, 161, 151, 39, 185
Start Head Position: 48
Direction: User Defined

[15]

Q.2 Write an MPI program to calculate sum of randomly generated 1000 numbers (stored in array) on a cluster [15]

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to calculate sum of all even randomly generated 1000 numbers (stored in array) on a cluster. [15]

Q.2 Write a simulation program for disk scheduling using C-LOOK algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.. [15]

80, 150, 60,135, 40, 35, 170
Starting Head Position: 70
Direction: Right

Q.3. Oral/Viva [05]

Savitribai Phule Pune University

T.Y.B.Sc.(Computer Science) Practical Examination, March/October

(2019 Pattern)

CS-367 Lab Course-I Operating System-II

Duration: 3 Hrs **Max. Marks: 35**

Q.1 Write an MPI program to find the min number from randomly generated 1000 numbers (stored in array) on a cluster (Hint: Use MPI_Reduce) [15]

Q.2 Write a simulation program for disk scheduling using FCFS algorithm. Accept total number of disk blocks, disk request string, and current head position from the user. Display the list of request in the order in which it is served. Also display the total number of head moments.

65, 95, 30, 91, 18, 116, 142, 44, 168
Start Head Position: 52

[15]

Q.3. Oral/Viva [05]