

CSE, 5<sup>th</sup> Sem (2021 - 2025)  
Course Name: Operating System Lab  
Course Code: PCC-SS592



**Sem-End Practical Examination**  
**Set A**

Date: 28/11/2023  
Full Marks: 60  
Time: 120 minutes

Write set number on your copy.				
Q. No.	Answer all the questions	Marks	CO Mapping	BT Level
1.	Write an interactive file handling shell program. Let it offer the user the choice of copying, removing, renaming or linking files. Once the user has made a choice, have the program ask the user for necessary information, such as the file name, new name and so on as applicable.	20	CO1, CO3, CO5	Apply
2.	Write a program to simulate Producer-Consumer problem using POSIX multi-threading.	20	CO2, CO3, CO5	Apply



Date: 28/11/2023  
Full Marks: 60  
Time: 120 minutes

## Set B

Q. No.	Write set number on your copy.	Write set number on your copy.		
		Marks	CO Mapping	BT Level
1.	<p>Create a text file (Employee.dat) containing five fields, NAME, ID, DESIGNATION, DEPT and SALARY. The field separator is '~'.</p> <p>Write an awk script to print the employee name and id of all the employees of the Accounts department whose salary is greater than 15000/-.</p>	20	CO1, CO3, CO5	Apply
2.	<p>WAP in C to compute the prime numbers between 1 and 100 by creating 10 threads and equally distributing the job to all the threads to compute the prime numbers and print them in ordered sequence.</p> <p>For example, thread-1 will compute the prime numbers between 1 and 10 and will print them first, while thread-10 will compute the prime numbers between 91 and 100 and will print them only after thread-9.</p>	20	CO2, CO3, CO5	Apply



CSE, 5<sup>th</sup> Sem (2021 - 2025)  
 Course Name: Operating System Lab  
 Course Code: PCC-CS592



Date: 28/11/2023  
 Full Marks: 60  
 Time: 120 minutes

**Sem-End Practical Examination**  
**Set C**

Write set number on your copy.				
Q. No.	Answer all the questions	Marks	CO Mapping	BT Level
1.	<p>Create a data file 'student.dat' using four fields, NAME, ROLL, PHONE and ADDRESS. The field separator is ';'.            (i) Now sort the roll numbers in reverse order. Write the file output in a new file, 'sorted.dat'.            (ii) Replace lower case letters with the uppercase letters in the above file. Take file input using redirection.            (iii) Write commands to find out the unique names from the above file.</p>	20	CO1. CO3, CO5	Apply
2.	<p>WAP in C to implement IPC using Signal, where the parent process will create a child process. When the parent process will receive a signal from child, it will take a string as input and print it after Capitalizing each word. This will continue until an interrupt signal occurs, when it will print an appropriate message and exit.</p>	20	CO2. CO3, CO5	Apply

CSE, 5<sup>th</sup> Sem (2021 - 2025)  
Course Name: Operating System Lab  
Course Code: PCC-CS592



Date: 28/11/2023  
Full Marks: 60  
Time: 120 minutes

**Sem-End Practical Examination**  
**Set D**

Write set number on your copy.		Marks	CO Mapping	BT Level
Q. No.	Answer all the questions			
1.	Write a menu driven script to do the following, i) Show whether a file is special file or regular file. Filename is supplied by user. ii) Print number of files and directories under current directory Separately. iii) Check last modification date and time of a user given file-name. Also handle the exceptions wherever applicable.	20	CO1. CO3, CO5	Apply
2.	Take two integers as input from user in process P1 and store them in a shared memory space. Process P2 will read the integers from the shared memory and will return the average of these two numbers (float) back to P1, which will print the result.	20	CO2. CO3, CO5	Apply