|  |  |
| --- | --- |
| **Sr. No.** | **Topics which needs to cover for freshers** |
| 1 | To practise commands: make directory, change directory, create file, copy and rename file, change permissions, delete file and directory |
| 2 | Authorization overview |
| 3 | To practise commands: cut, grep, ps, find, sort, word count, to compile and execute C program |
| 4 | Sources of transactions, Information on Card, Aquirer, Issuer, Role of Mastercard |
| 5 | To refer <http://www.tutorialspoint.com/cprogramming/c_program_structure.htm> |
| 6 | Flow of a transaction request and response |
| 7 | 1. To accept 5 numbers and print the biggest number,  2. To perform addition and multiplication using functions, 3. To accept and display 10 names using arrays |
| 8 | Role of Issuer MIP and Aquirer MIP |
| 9 | 1. To print student details using structure,  2. To swap numbers using call by reference,  3. To read character by character from a file and display on stdout and count the number of lines, 4. To read line by line from a file and write to another, 5. To accept file as an input parameter, check for read permission, read contents and display |
| 10 | Entities involved in a transaction |
| 11 | To refer links on pointers and dynamic memory allocation |
| 12 | Online transactions, Offline transactions, StandIn and X code |
| 13 | Pointers, Dynamic memory allocation, Overview of Linked List |
| 14 | Gateways, Peer-to-Peer transactions, PAN Mapping |
| 15 | Review on UNIX commands and exercises |
| 16 | Types of Messages, Bit Mapping |
| 17 | Review on C programming exercises |
| 18 | Bit Mapping recap and framing a message |
| 19 | Review on C programming exercises |
| 20 | Overview of Interprocess communication, message queues and shared memory |
| 21 | Doubly Linked List |
| 22 | MasterCard Rewards, MasterCard Flow and products |
| 23 | Doubly Linked List |
| 24 | Recap Session- Entities involved in a transaction |
| 25 | Review on doubly linked list |
| 26 | Exercise on Doubly linked list |
| 27 | Debugging, makefile |
| 28 | Bit Map formation and SAF |
| 29 | Exercise on makefile and debugging |
| 30 | Test on MasterCard Functionality |
| 31 | Review on C programming exercises |
| 32 | Exercise on Doubly linked list |
| 33 | Review on Doubly linked list |
| 34 | Test on C programming |
| 35 | Review on makefile |
| 36 | Test Discussion (Functionality) |
| 37 | Singly Linked List |
| 38 | Hands-on (Linked list exercises and debugging using gdb) |
| 39 | Overview |
| 40 | Hands-on (Linked list exercises and debugging using gdb) |
| 41 | Review and Variables |
| 42 | Hands-on (Shell scripting practice) |
| 43 | Loops and positional parameters |
| 44 | Hands-on (Shell scripting excercises) |
| 45 | Shell scripting exercise on Loops and positional parameters |
| 46 | Applications of C overview, Multidimensional arrays, pointers |
| 47 | Hands-on (Singly Linked List Sorting) |
| 48 | Array of pointers, Function pointers,  command line arguments, file handling, Memory allocation |
| 49 | Hands-on (Singly Linked List Sorting) |
| 50 | Linked list, Unix overview |
| 51 | Arrays, Functions, SFTP |
| 52 | Hands-on (Functions and loops) |
| 53 | Review on functions and loops |
| 54 | Hands-on (Arrays and SFTP) |
| 55 | Review on SFTP and other Shell scripting programs |
| 56 | Hands-on (Shell scripting commands) |
| 57 | Review on Shell scripting and Unix commands |
| 58 | Hands-on (Programs basic operations on shell scripting, Programming in C) |
| 59 | Review on Shell scripting and Unix commands |
| 60 | Hands-on (Unix and shell scripting commands, Programming in C) |