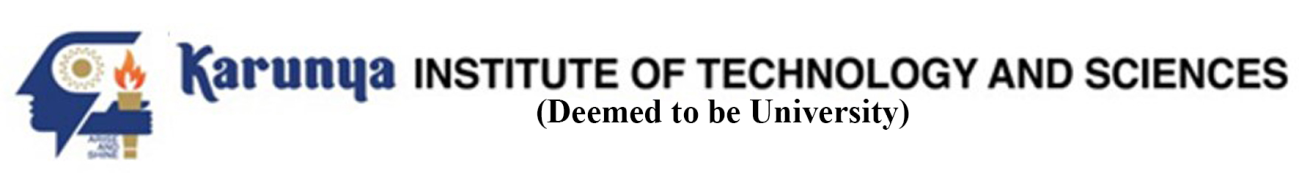
Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **14CS2044** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTRODUCTION TO SYSTEM ADMINISTRATION** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Show the different channels supported by a Linux system using a diagram. Also, provide the example commands which uses the channels with AND, OR, pipe, and tee. | CO1 | 10 |
| b. | Make use of different Linux permissions show that how to set access privileges for user, groups and other users. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | List the different shells available in Linux and their significance with examples. | CO1 | 10 |
| b. | List the core graphical utilities and its functions. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | The “myfruits.txt” file contains the following contents  Fred apples 20  Susy oranges 5  Mark watermellons 12  Robert pears 4  Terry oranges 9  Lisa peaches 7  Apply five different *sed*filters to transform the output. | CO2 | 10 |
| b. | Develop your own cron job for backing up the /home directory of a Linux machine. Also explain the functioning of cron daemon. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Show that how the memory utilization can be analyzed against thrashing with the help of vmstat and vmstat2. | CO1 | 10 |
| b. | Construct five different regular expressions to search the interesting pattern with the use of the egrep command in a file.txt. Assume the following content available in the file.txt  Fred apples 20  Susy oranges 5  Mark watermellons 12  Robert pears 4  Terry oranges 9  Lisa peaches 7 | CO2 | 10 |
| 5. | a. | Assess the steps required to configure a new hard disk sdb of 1 TB attached to your Linux server. The partitions needed in the disk are two primary partitions of size 25 GB and 2 logical partitions of size 30 GB and 20 GB. | CO2 | 10 |
| b. | Demonstrate the use of wget with five different options and explain the examples. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | List the steps in the booting process. | CO1 | 10 |
| b. | Illustrate the capacity of systemd and its components. | CO1 | 10 |
|  |  |  |  |  |
| 7. | a. | Write about the user security issues in a Linux system. | CO3 | 10 |
| b. | Demonstrate the application of *ip* command with five different options. Explain each of the examples. | CO3 | 10 |
| (OR) | | | | |
| 8. | a. | Construct the correct *yum* commands to perform the following operations on your selected package *install, remove, update, search*, and *package info.* Write the explanations for each option. | CO2 | 10 |
| b. | Show the different init options with examples. | CO1 | 10 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Write a shell script find all the .mp3 audio files in the home directory and delete the same. Also, show that how the above script can be automated to run at every Friday at 10.30 PM using cron. | CO2 | 10 |
| b. | Illustrate the process involved in updating the Linux kernel. | CO2 | 10 |