

Master in Computer Applications
MCAC106: Software Tools and Techniques
Unique Paper Code: 223421109
Semester I
December-2024
Year of admission: 2024

Time: Three Hours

Max. Marks: 70

1. What are shell variables? How are they defined and accessed? **(5 Marks)**
2. Answer the following questions.
 - a) Explain **five** common Linux commands for file management. **(5 Marks)**
 - b) What is the difference “su” and “sudo” commands? **(5 Marks)**
 - c) Create a directory named “directory 1” and make two files in it (add some content in both files) concatenate both files and transfer the concatenated file from “directory 1” to “directory 2”. **(5 Marks)**
3. What are Daemons in Linux? Explain the Crontab and Xined daemons with their syntax. How we can enable and disable Daemons? **(2+2+2 Marks)**
4. What do you mean by debugging and profiling? Explain Debugging techniques. **(3+3 Marks)**
5. Answer the following questions.
 - a) Differentiate between version control git and GitHub. **(4 marks)**
 - b) Explain the purpose and the syntax of Git “status” command. **(4 marks)**
 - c) What is the use of “push” and “pull” commands? Explain it with the help of an example. **(4 marks)**
6. What is data wrangling and why is it important? Explain the steps involved in the data wrangling process. **(2+3 Marks)**
7. Answer the following questions.
 - a) How do you create headings in Markdown? **(2 marks)**
 - b) What syntax is used to create bold and italic text in Markdown? **(2 marks)**
 - c) Explain how to create ordered and unordered lists. **(2 marks)**
8. What do you mean by window manager? Explain any **six** different components of windows. **(10 Marks)**
9. Write a code to add a figure in Latex. Also, provide a caption and figure label. **(3+2 Marks)**