Roll No…….. **Total No. of Printed Pages: 01**
Total No. of Questions: [09]

BCA-MCA Dual Degree (Semester – 4th)
LINUX OPERATING SYSTEM
Subject Code: BCMC422
Paper ID: [18340118]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a Explain directory structure in linux.
b What is dual booting? Discuss some issues of dual booting.
c What are real time systems?
d How can we set the login message?
e What is I/O redirection?
f How will you create a new user in linux?
g What are pipes?
h How can one find the ownership of a file? How can the ownership be changed?
i What is wildcard character?
j Explain AWK Pattern scanning

Section – B **(5 marks each)**

Q2. What are the key components of the Linux operating system architecture?
Q3. Explain working of vi editor.
Q4. Explain backup and restore process in linux.
Q5. a) How can you create a new user in Linux with a specified home directory?
b) Which command is used to view running processes, and how can you kill a specific process?
Q6. Explain conditional statement in shell scripting. Write a script that executes the command "cat/etc/shadow". If the command return a 0 exit status, report "command succeeded" and exit with a 0 exit status. If the command returns a non-zero exit status, report "Command failed" and exit with a 1 exit status.

Section – C **(10 marks each)**

Q7. a) Discuss the role of the sudo command in enhancing security on a Linux system. How does it differ from logging in directly as the root user?
b) Write a short note on Inter-User and Inter-Machine Communication.
Q8. Explain the following tasks:
a) Mounting file system b) Regular Expression and Grep
Q9. What is an operating system? Explain its types.