Roll No: | | | | | | | | | | | |

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

PRESIDENCY UNIVERSITY

Presidency University Act, 2013 of the Karnataka Act No. 41 of 2013 | Established under Section 2(f) of UGC Act, 1956
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Bengaluru

Mid Term Examinations - October 2026

Date: 05/10/2026 **Time:** 09:30 AM - 11:00 AM

Course Code: CSE2507 **Course Name:** Unix and Shell Programming

Semester: Fifth Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	68	112

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	Differentiate between absolute path and relative path, with one example each.	2	CO2	BT2
2	Apply your understanding of UNIX permission notation to write the appropriate chmod command in octal notation for a shell script named script.sh, where the owner has read, write, and execute permissions; the group has read and execute permissions; and others have no permissions.	2	CO2	BT3
3	Illustrate the UNIX command to display today's date in the format DD-MM-YYYY.	2	CO1	BT3
4	Differentiate between $# and $@ in shell scripting? Explain the purpose of each with a suitable example.	2	CO1	BT2
5	Differentiate between `echo` and `printf` in shell scripting.	2	CO1	BT2

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	A system administrator is auditing file permissions on a Linux system. The following files have the specified permissions in octal notation: **Filename** **Octal Permission** backup 754 clean_data 640 private_data 777 raw_data 640 salary 600 a) Apply the octal-to-symbolic conversion procedure to translate the octal permission of each file into its symbolic notation. b) Use the symbolic notation to identify the permissions assigned to the owner, group, and others for each file. c) Determine which files provide execute permission to others, citing the relevant symbolic permissions.	10	CO2	BT3
7	Apply your knowledge of exit codes in shell scripting by using $? to check the outcome of commands and demonstrating the purpose of exit codes in suitable examples. Use any eight commonly used exit codes in working commands or scripts, showing the situation in which each one occurs.	10	CO1	BT3

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Demonstrate the use of shell variables by assigning values to variables and applying variable expansion in suitable examples. Develop a shell script that reads values from the user, stores them in variables, and displays the stored values.	10	CO2	BT3
9	Apply your knowledge of conditional statements and exit codes to write a shell script that accepts a student's marks as input and determines whether the student has passed or failed. Use the script to display the result and exit with code 0 for pass and 1 for fail. Execute the script and use $? to display the exit code	10	CO1	BT3

PART D: Answer Any 1 Following Questions. 10 M				
Q.N.	**Questions**	**M**	**CO**	**BT**
10	Explain the concept of file attributes in UNIX/Linux and describe the different types of file attributes with suitable examples. Also, distinguish between a file name and a file identifier, giving an example of each.	10	CO2	BT2
11	Summarize the UNIX file system directory structure and explain the purpose of any seven standard directories, such as /boot, /etc, /home, /lib, /media, /mnt, /opt, /root, /sbin, /srv, /usr, and /var	10	CO2	BT2

PART E: Answer Any 1 Following Questions. 10 M				
Q.N.	**Questions**	**M**	**CO**	**BT**
12	Describe the basic file attributes displayed by ls -l and explain the common ls options (-a, -l, -i, -R, -t) with examples. Explain the purpose of chown and chgrp for changing ownership and group, summarize how umask sets default permissions, and describe the parent-child relationship of directories.	10	CO2	BT2
13	Summarize the role of general-purpose utility commands in UNIX/Linux. Classify and explain any five such commands by their purpose, giving a suitable example for each.	10	CO2	BT2