

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BCA
BRANCH: BCA**

**SEMESTER : VI
SESSION : SP/2024**

SUBJECT: CA325 UNIX AND SHELL PROGRAMMING

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Explain the concept of Unix files and directories. How are they organized within the Unix file system?	[5] 2	2,3
Q.1(b)	Explain the purpose and usage of following commands in Unix i) tac ii) mkdir, iii) iv) ls, v) pwd	[5] 1	1
Q.2(a)	What do you mean by a process in Unix? How do you set a process to run in background? Differentiate between foreground and background processes.	[5] 2	2
Q.2(b)	Explain how pipes and filters work in Unix. Give examples.	[5] 2	2
Q.3(a)	Write a shell script, which will take a file name as argument and display the contents of the file in the reverse order.	[5] 2,3	2,3
Q.3(b)	Discuss the case...esac construct in Unix shell scripting. How is it used for conditional branching?	[5] 2	2,3
Q.4(a)	Describe the variables used in awk. What are the different methods of executing an awk script?	[5] 2	3
Q.4(b)	Write an awk script to find out the word with maximum length in the input file.	[5] 1,2	2,3
Q.5(a)	What do you mean by random access to a file? How do you set the file pointer (fd) to point the desired position within a file? Describe.	[5] 2	2
Q.5(b)	What do you mean by the system calls in Unix? Describe the uses of chdir() and chmod() system calls along with their format/syntax?	[5] 2	2,3

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