Model Question Paper-2 with effect from 2022(CBCS Scheme)

USN

Fifth Semester B. Tech Degree Examination
UNIX System Programming

TIME: 03 Hours   **Max.Marks:100**

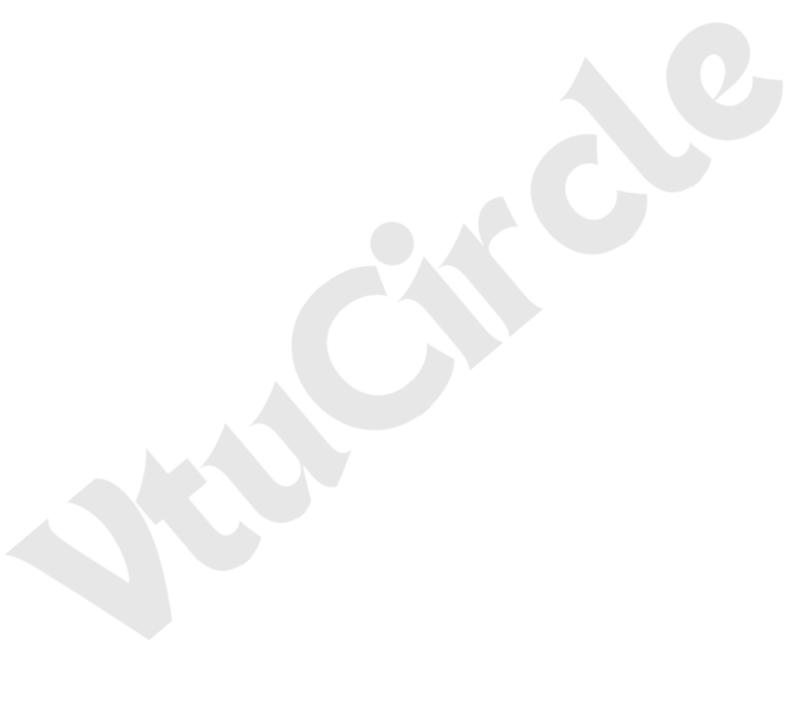Note: Answer any FIVE full questions, choosing at least ONE question from each MODULE

		Module-1	*Bloom's Taxonomy Level	COs	Marks
Q.01	a	With the example, explain the following commands. i)man ii)pwd iii)od iv) cal v)date	L1	1	10
	b	With a neat diagram, explain the kernel and shell relationship in UNIX operating System.	L2	1	10
		OR			
Q.02	a	Explain the salient features of Unix Operating System	L2	1	10
	b	Differentiate between Internal and External commands in UNIX operating system with example.	L2	1	10
		Module-2			
Q.03	a	Explain ls Command with all the options.	L2	2	10
	b	Define Wild Cards? Explain various shell wild cards with suitable example.	L2	2	10
		OR			
Q.04	a	Explain changing file permissions in relative and absolute manner.	L2	2	10
	b	Explain if and While control statements in shell scripts with suitable program	L1	2	10
		Module-3			
Q.05	a	Explain the following functions with their prototypes and examples: i) mkdir() ii) rmdir() iii)fcntl()	L2	3	10
	b	Discuss the various UNIX system implementation.	L2	3	10
		OR			
Q.06	a	With a neat diagram explain how a C program is started and terminated.	L2	3	10
	b	Explain getrlimit () and setrlimit() API's.	L2	3	10
		Module-4			
Q.07	a	Explain the fork and vfork system calls. How does fork differ from vfork?	L2	4	10
	b	Write short notes on the following with examples: i) exec() ii) Race conditions	L2	4	10
		OR			
Q.08	a	What are pipes? What are its limitations? Write a program to send data from parent to child over a pipe.	L2	4	10
	b	What is a FIFO? With a neat diagram explain client server communication	L2	4	10

		using FIFO.			
Module -5					
Q9	a	Define Signal? Explain sigprocmask function with a program.	L2	5	10
	b	Explain Daemon characteristics and coding rules.	L2	5	10
OR					
Q10	a	What is a daemon process? Explain coding rules and error logging.	L2	5	10
	b	Explain the following functions: i)system() ii) sleep()	L2	5	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the Cos and Pos to be attained by every bit of questions.

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ModelQuestionPaper-1 with effect from 2022(CBCS Scheme)

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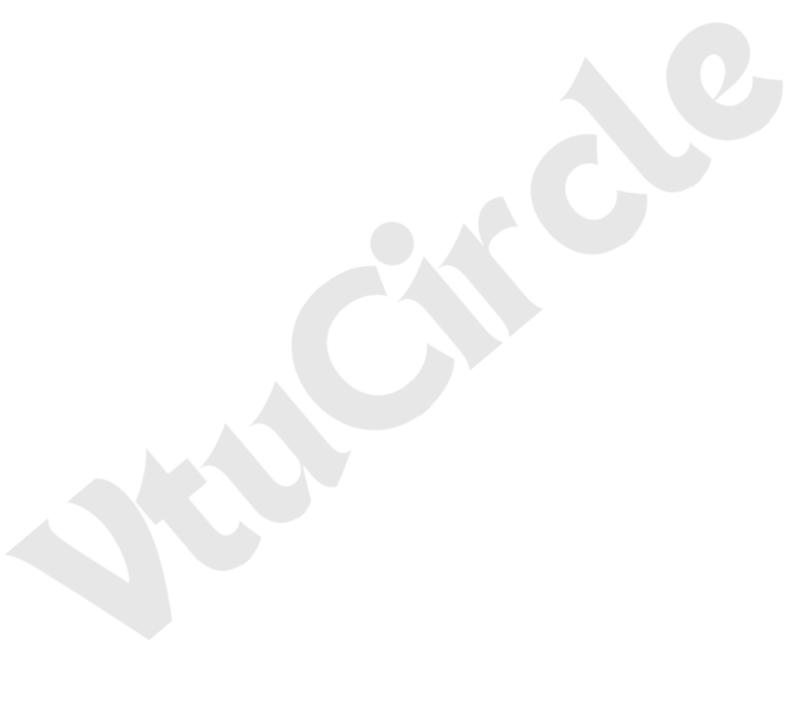**TIME: 03 Hours**   **Max.Marks:100**

Note: Answer any FIVE full questions, choosing at least ONE question from each MODULE

		Module-1	*Bloom's Taxonomy Level	COs	Marks
Q.01	a	With a neat diagram, explain the kernel and shell relationship in UNIX operating System.	L1	1	10
	b	Explain the following commands with example: i)cat ii) printf iii)who	L2	1	10
		OR			
Q.02	a	Explain the salient features of Unix Operating System	L2	1	10
	b	Explain different types of files supported in UNIX.	L2	1	10
		Module-2			
Q.03	a	Explain ls Command with all the options.	L2	2	10
	b	Define Wild Cards? Explain various shell wild cards with suitable example.	L2	2	10
		OR			
Q.04	a	Explain grep command with all its options.	L2	2	10
	b	Explain the three standard files in UNIX.	L1	2	10
		Module-3			
Q.05	a	Explain the following functions with their prototypes: i) open() ii) create() iii) read() iv) write() v) close()	L2	3	10
	b	Discuss the various UNIX system implementation.	L2	3	10
		OR			
Q.06	a	With a neat diagram explain the memory layout of a C program.	L2	3	10
	b	Example setjmp and longjmp API's with examples	L2	3	10
		Module-4			
Q.07	a	Explain the following system calls with examples: i) fork() ii) wait()	L2	4	10
	b	Write short notes on the following with examples: i) Semaphores ii) Message queues	L2	4	10
		OR			

Q.08	a	Explain popen and pclose functions with examples.	L2	4	10
	b	What is a FIFO? With a neat diagram explain client server communication using FIFO.	L2	4	10
Module -5					
Q9	a	Define Signal? Explain sigaction API with demonstrating program.	L2	5	10
	b	Explain Daemon characteristics and coding rules.	L2	5	10
OR					
Q10	a	Explain Sigsetjmp and siglongjmp APIs with example.	L2	5	10
	b	What are daemon processes? Explain with a neat diagram the error logging facility for a daemon process.	L2	5	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the Cos and Pos to be attained by every bit of questions.

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