Model Question Paper-1 with effect from 2020-21 (CBCS Scheme)

USN

Fifth Semester B.E. Degree Examination
Unix Programming

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

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	
Q.1	**(a)**	With a neat diagram, explain the kernel and shell relationship in UNIX operating System.	8
	(b)	Explain the following commands with example: i)cat ii)printf iii)who	6
	(c)	Differentiate between Internal and External commands in UNIX operating system with example.	6
		OR	
Q.2	**(a)**	Explain the salient features of Unix Operating System.	8
	(b)	Explain different types of files supported in UNIX.	6
	(c)	With the example, explain the following commands. i)man ii)pwd iii)od	6
		Module – 2	
Q.3	**(a)**	Explain the use of chmod command to change file permission using both absolute and relative methods	8
	(b)	Explain ls Command with all the options.	6
	(c)	Define Wild Cards? Explain various shell wild cards with suitable example.	6
		OR	
Q.4	**(a)**	Explain grep command with all its options.	8
	(b)	Explain the three standard files in UNIX.	6
	(c)	Explain if and While control statements in shell scripts with suitable program	6
		Module – 3	
Q.5	**(a)**	Explain how mknod and mkfifo APIs are used to create device and FIFO file	8

	(b)	Explain with a neat diagram how process can be initiated and how process can be terminated.	8
		OR	
	(a)	Explain setjmp and longjmp APIs with an example	8
Q.6	**(b)**	Explain wait and waitpid APIs with their prototype. Mention the differences between wait and waitpid	8
		Module – 4	
	(a)	Explain setuid and setgid functions with example and explain various ways to change user IDs	8
Q.7	**(b)**	What are pipes? What are its limitations? Write a program to send data from parent to child over a pipe.	8
		OR	
	(a)	Explain popen and pclose functions with example.	8
Q.8	**(b)**	What is a FIFO? With a neat diagram explain client server communication using FIFO.	8
		Module – 5	
	(a)	Define Signal? Explain sigaction API with demonstrating program.	8
Q.9	**(b)**	Explain Daemon characteristics and coding rules	8
		OR	
	(a)	Explain Sigsetjmp and siglongjmp APIs with example.	8
Q.10	**(b)**	What are daemon processes? Explain with a neat diagram the error logging facility for a daemon process.	8

Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome			
Question		**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**

Question		**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**
Q.1	(a)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(b)	L3	CO1	PO1,PO3,PO4,PO5,PO12
	(c)	L1	CO1	PO1,PO3,PO4,PO5,PO12
Q.2	(a)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(b)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(c)	L3	CO1	PO1,PO3,PO4,PO5,PO12
Q.3	(a)	L3	CO1	PO1,PO3,PO4,PO5,PO12
	(b)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(c)	L2	CO2	PO2,PO3,PO4,PO12
Q.4	(a)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(b)	L2	CO1	PO1,PO3,PO4,PO5,PO12
	(c)	L3	CO2	PO2,PO3,PO4,PO12
Q.5	(a)	L2	CO3	PO3,PO4,PO5,PO12
	(b)	L2	CO3	PO3,PO4,PO5,PO12
Q.6	(a)	L2	CO3	PO3,PO4,PO5,PO12
	(b)	L2	CO3	PO3,PO4,PO5,PO12
Q.7	(a)	L2	CO3	PO3,PO4,PO5,PO12
	(b)	L3	CO4	PO1,PO3,PO4,PO5,PO12
Q.8	(a)	L2	CO3	PO3,PO4,PO5,PO12
	(b)	L2	CO4	PO1,PO3,PO4,PO5,PO12
Q.9	(a)	L3	CO3	PO3,PO4,PO5,PO12
	(b)	L2	CO4	PO1,PO3,PO4,PO5,PO12
Q.10	(a)	L2	CO4	PO1,PO3,PO4,PO5,PO12
	(b)	L2	CO4	PO1,PO3,PO4,PO5,PO12

Bloom's Taxonomy Levels	**Lower order thinking skills**		
	Remembering(knowledge):L_1	Understanding Comprehension): L_2	Applying (Application): L_3
	Higher order thinking skills		
	Analyzing (Analysis): L_4	Valuating (Evaluation): L_5	Creating (Synthesis): L_6