

<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, May 2021**

**Course: Advanced Linux**  
**Program: B.Tech (CS+DevOps)**  
**Course Code: CSDV 2003**

**Semester: IV**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

**SECTION A**

**1. Each Question will carry 5 Marks**

**2. Instruction: Complete the statement / Select the correct answer(s)**

S. No.		Marks	CO
Q 1	Which of the following statement is FALSE ? i. Unix supports multiple users ii. Linux is an open source operating system and the source code is shared iii. Shell takes care of inter process communication iv. Shell provides the feature of I/O Redirection	5	CO1
Q 2	By default, SMTP operates on which port? i. 21 ii. 23 iii. 119 iv. 25	5	CO2
Q 3	To query DNS (Internet domain name) servers, you use the command: i. DNS ii. nslookup iii. dnsquery iv. isrouted	5	CO4
Q 4	On Red Hat Linux and its derivatives, which of the following commands will be appropriate to check whether a particular “package” is installed or not? i. query-pkg ii. rpm -qa iii. pkg iv. sys	5	CO3
Q 5	/sys directory holds _____ data i. Real-time information ii. System information iii. Error logs iv. Boot files	5	CO2
Q 6	How would you find out what your current login shell is? i. cat/etc/shell ii. echo \$\$SHELL iii. echo shell iv. pwd	5	CO2

**SECTION B**

**Each question will carry 10 marks**

**Instruction: Write short / brief notes**

Q 7	a) Write a shell script that will ping a host and print the return code. b) Write a shell script which takes arguments while executing the script and map it to First name and Surname and print number of arguments that is entered.	<b>10</b>	<b>CO2</b>
Q 8	Explain the following networking tools in brief: (a) ping (b) nslookup (c) telnet (d) arp	<b>10</b>	<b>CO4</b>
Q 9	Explain the working of GRUB bootloader with dynamic configuration.	<b>10</b>	<b>CO3</b>
Q 10	Explain various run levels of Linux operating system with suitable example.	<b>10</b>	<b>CO2</b>
Q 11	Explain the package management system of Linux. Differentiate between rpm and yum in detail <p style="text-align: center;"><b>OR</b></p> Write a shell scripts to print Fibonacci series by using control structures?	<b>10</b>	<b>CO2</b>
<b>SECTION-C</b>			
<b>Instruction: Write long answer.</b>			
Q 12	Explain the steps for managing public and private groups in redhat and CentOS <p style="text-align: center;"><b>OR</b></p> Explain the role of Linux performance monitoring matrices. Explain memory matrix and block device matrix in details.	<b>20</b>	<b>CO4</b>