

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

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2019**

**Course: Administering Open Source Systems**

**Semester: IV**

**Program: B.Tech CS SPZ. OSS**

**Time 03 hrs.**

**Course Code: CSOS 2002**

**Max. Marks: 100**

**Instructions: Attempt all questions**

**SECTION A**

S. No.		Marks	CO
Q 1	What is a shell? Explain with neat diagram also discuss different shell types?	4	CO1
Q 2	Demonstrate environment variables in linux?	4	CO2
Q 3	What do you understand by command line editing? Explain with example?	4	CO3
Q 4	Analyze pipes in linux? Explain it with neat diagram?	4	CO4
Q 5	Explain different run levels in linux? Explain with example?	4	CO2

**SECTION B**

Q 6	Analyze different steps to compile a new kernel? How would you create a local repository for YUM?	10	CO4
Q 7	Explain UMASK in linux? Explain in detail with applications?	10	CO5
Q 8	Summarize different process managing utilities? Explain any four process utilities?	10	CO3
Q 9	<p>Explain different types of backups in linux? Explain “dump”, “restore”, “tar” utilities?</p> <p style="text-align: center;"><b>OR</b></p> <p>What are two ways you can execute a shell script when you do not have execute access permission for the file containing the script? Can you execute a shell script if you do not have read access permission for the file containing the script?</p>	10	CO3

**SECTION-C**

Q 10	<p>Create a crontab file that will regularly perform the following backups:</p> <ol style="list-style-type: none"> <li>Perform a level 0 backup once per month.</li> <li>Perform a level 2 dump one day per week.</li> <li>Perform a level 5 dump every day on which neither a level 0 nor a level 2 dump is performed.</li> </ol> <p>In the worst-case scenario, how many restore commands would you have to give to recover a file that was dumped using this schedule?</p>	20	CO5
------	---	----	-----

<p>Q 11</p>	<p>When it puts files in a <b>lost+found</b> directory, fsck has lost the directory information for the files and thus has lost the names of the files. Each file is given a new name, which is the same as the inode number for the file:  <b>\$ ls -l lost+found</b>  -rw-r—r— 1 alex pubs 110 Jun 10 10:55 51262  How can you identify these files and restore them?</p> <p style="text-align: center;"><b>OR</b></p> <p>Explain in detail SAMBA file system? Also explain its features and steps to configure it?</p>	<p><b>20</b></p>	<p><b>CO4</b></p>

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

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2019**

**Course: Administering Open Source Systems**

**Semester: IV**

**Program: B.Tech CS SPZ. OSS**

**Time 03 hrs.**

**Course Code: CSOS 2002**

**Max. Marks: 100**

**Instructions: Attempt all questions**

**SECTION A**

S. No.		Marks	CO
Q 1	How do you find which processes are using a particular file?	4	CO1
Q 2	Explain environment variables in linux?	4	CO2
Q 3	What do you understand by command line editing? Explain with example?	4	CO1
Q 4	Some filenames are preceded by a dot. Explain its significance?	4	CO3
Q 5	Analyze redirection? Explain error redirection with suitable example? "Redirecting output can destroy the file" comment on this statement?	4	CO3

**SECTION B**

Q 6	What are different steps to compile a new kernel? How would you create a local repository for YUM?	10	CO4
Q 7	When I look at a list of files and directories, the names are followed by something like -rw-rw-r-- or lrwxrwxrwx. What does this mean?	10	CO5
Q 8	Explain process managing utilities? Explain any four process utilities?	10	CO2
Q 9	What happens when you give the following commands if the file named <b>done</b> already exists?  <pre style="margin-left: 40px;">\$ cp to_do done</pre> <pre style="margin-left: 40px;">\$ mv to_do done</pre>  <p style="text-align: center;"><b>OR</b></p> What are two ways you can execute a shell script when you do not have execute access permission for the file containing the script? Can you execute a shell script if you do not have read access permission for the file containing the script?	10	CO3

**SECTION-C**

Q 10	Create a crontab file that will regularly perform the following backups: a. Perform a level 0 backup once per month. b. Perform a level 2 dump one day per week. c. Perform a level 5 dump every day on which neither a level 0 nor a level 2 dump is performed. In the worst-case scenario, how many restore commands would you have to give to recover a file that was dumped using this schedule?	<b>20</b>	<b>CO5</b>
Q 11	When it puts files in a <b>lost+found</b> directory, fsck has lost the directory information for the files and thus has lost the names of the files. Each file is given a new name, which is the same as the inode number for the file: <b>\$ ls -l lost+found</b> -rw-r--r-- 1 max pubs 110 06-10 10:55 51262 How can you identify these files and restore them?  <p style="text-align: center;"><b>OR</b></p> Examine different steps you take before performing an upgrade on a mission critical server?	<b>20</b>	<b>CO4</b>