1. Which of the following commands is known as stream editor?  
a) sed  
b) grep  
c) egrep  
d) tr

Answer: a  
Explanation: sed is a multipurpose tool which performs the function of several filters together. This filter is derived from the ed (original UNIX editor). It performs non-interactive operations on a data stream. It uses instructions to act on a text for selecting lines, with an action to be taken.

2. What is the correct syntax for using sed?  
a) sed options file(s)  
b) sed options ‘action’  
c) sed options ‘address action’ file(s)  
d) sed ‘action’ file(s)

Answer: c  
Explanation: sed is a multipurpose tool which performs the function of several filters together. It can even manipulate characters in the file. The syntax for using this tool is:  
sed options ‘address action’ file(s)

3. Which one of the following command will be used for quitting after selecting 3 lines from file emp.lst?  
a) sed -n 3 emp.lst  
b) sed -i 1-3 emp.lst  
c) sed ‘3q’ emp.lst  
d) sed -n

Answer: c  
Explanation: We can use line addressing feature of sed command by using ‘q’ along with the line number. For example, 3q will quit after selecting 3 lines from the file. Here ‘q’ is used for quitting.

4. sed can also perform the substitution.  
a) True  
b) False

Answer: a  
Explanation: Substitution is one of the most important features of sed as it allows us to replace a pattern in its input with some other pattern. For this purpose, regular expressions are used for enhancing pattern matching capabilities.

5. Which one of the following is the correct syntax for performing substitution using sed?  
a) sed [address]s /expr1/ expr2  
b) sed [address]s /expr1 expr2  
c) sed [address]s /expr1/ expr2/ flags  
d) sed [address]s

Answer: c  
Explanation: Substitution is one of the most important features of sed as it allows us to replace a pattern in its input with some other pattern. The correct syntax for performing substitution is :

sed [address]s /expr1/ expr2/ flags

where address represents the line numbers where we want to perform the substitution.  
expr 1 and expr2 are expressions in which expr1 is replaced with expr2  
flags are used for implementing the global or local replacement policy

6. Which one of the following command is used for replacing | with : globally?  
a) sed ‘s/|/:/’ emp.lst  
b) sed ‘/|/:/’ emp.lst  
c) sed ‘s/|/:/g’ emp.lst  
d) sed ‘s/

Answer: c  
Explanation: sed can perform substitution i.e. it allows us to replace a pattern in its input with some other pattern. The flag g is used for performing substitution globally.

7. To replace the string ‘director’ in the first five lines of file emp.lst with ‘manager’ we can use \_\_\_\_\_  
a) sed ‘s/director/manager/’ emp.lst  
b) sed ‘1-5s/director/manager/’ emp.lst  
c) sed ‘1,5s/director/manager/’ emp.lst  
d) sed ‘15s

Answer: c  
Explanation: Performing substitution using sed is not only limited to a single character; it can be any string. Above command will replace the string ‘director’ with ‘manager’ in the first five lines of file emp.lst.

8. Which of the following characters are used with sed as anchoring characters?  
a) $  
b) ^  
c) %  
d) $ and ^

Answer: d  
Explanation: We can use the anchoring characters, ^ and & with the same meaning. They are used as sole characters in the source pattern to replace the target pattern at that location. For example,

$ sed ‘s/^/2/’ emp.lst //add first character with a prefix ‘2’

$ sed ‘s/$/.00/’ emp.lst // add the last character with a suffix ‘.00’

9. What will be the function of the following command?  
$ sed ‘s/ \*|/|/g’ emp.lst  
a) replace \* with |  
b) replace / with |  
c) compress multiple spaces  
d) erroneous output

Answer: c  
Explanation: We can delete the trailing spaces from a file using sed. For this purpose the metacharacter (\*) is used.

10. Which one of the following command will be used for adding two spaces before every line in emp.lst?  
a) sed ‘s/^/ /’ emp.lst  
b) sed ‘s / / /’emp.lst  
c) sed ‘s /$/ /’emp.lst  
d) sed ‘s/$/

Answer: a  
Explanation: The ^ symbol is used for prefixing some value at the beginning of any line in the file.