**Question 1: Explain this following bash script:**

#!/bin/bash

space\_free=$( df -h | awk '{ print $5 }' | sort -n | tail -n 1 | sed 's/%//' )

case $space\_free in

[1-5]\*)

echo Plenty of disk space available

;;

[6-7]\*)

echo There could be a problem in the near future

;;

8\*)

echo Maybe we should look at clearing out old files

;;

9\*)

echo We could have a serious problem on our hands soon

;;

\*)

echo Something is not quite right here

;;

Esac

**Ans:**

**Explanation:**

#!/bin/bash

#The first line in Bash scripts is a character sequence known as the "**shebang**."

First line is shebang.

space\_free=$( df -h | awk '{ print $5 }' | sort -n | tail -n 1 | sed 's/%//' )

#Second line is to get available free size on disk

**# Print a message about disk usage**.

Below lines (3-11) are to print the status of disk based on size

[1-5]\*) “Plenty of disk space available” message will get executed if first digit of $space\_free variable comes under 1 to 5

[6-7]\*) “There could be a problem in the near future” message will get executed if first digit of $space\_free variable is 6 or 7

8\*) “Maybe we should look at clearing out old files” message will get executed if first digit of $space\_free variable is 8

9\*) “We could have a serious problem on our hands soon” message will get executed if first digit of $space\_free variable is 9

\*) “Something is not quite right here” message will get executed if first digit of $space\_free is not between 1 to 9