Que 1) Explain the following bash script:

Ans:- This script starts with the shabang (#!/bin/bash) which is a starting of any bash scripting.

**(space\_free)** : It is th linux command which displays the total amount of free space available with amount of memory used and swap memory

**(Df -h)** : The "df" command stands for disk filesystem and is used to get full summary of available and used disk space. While "-h" is used to show disk space statistics in human readable format.

**(awk '{ print $5 }')** : The "awk" in tis script means it is associated with the scripting lamguage it defines a pattern to perform specific action on the text matches the pattern.

while "{print $5}" means that fiels variable i.e It holds value for the individual text fiels in the record.

**(sort -n)** : The "sort -n " command is used to sort the input data as per the numeric value. We need to use the "-n" command in the sort command.

**(tail -n 1)** : The "tail" command as the name implies that print last lines which is specifies as in the command the "-n" implies the number of lines whih is given as 1.

**(sed 's/%//')** : Thw "sed" command is mostly used to replace the text in a file i.e in this statement th s/ is replaced by the %/.

**("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)**

Here are some use cases which ar created weather the space in the disk is free or not and according to the input the outputs are written. It will show according to the input of the user