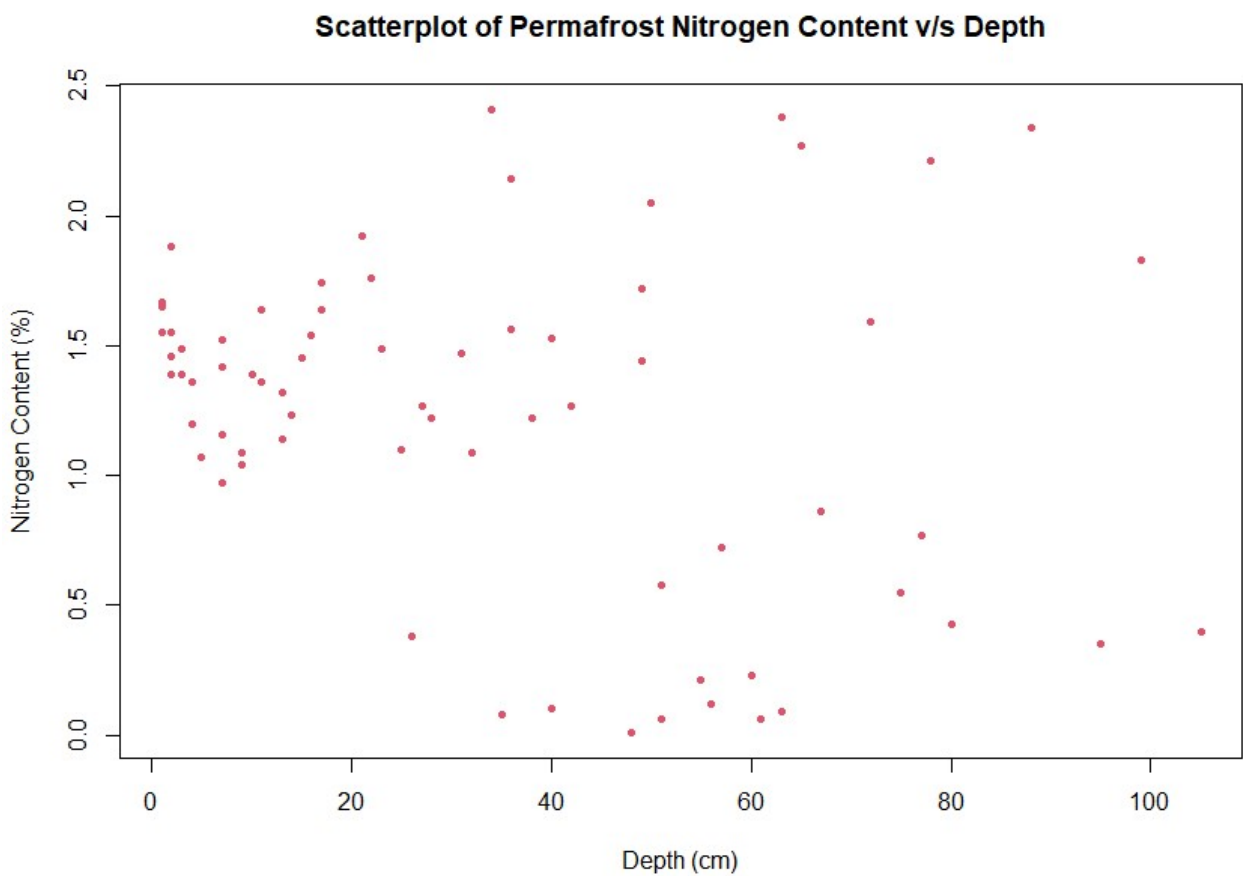


Part B

a)



```
plot(permaFrost$Soil_depth_cm, permaFrost$Ncontent_percentage_on_drymass,
main="Scatterplot of Permafrost Nitrogen Content v/s Depth",
xlab="Depth (cm)", ylab="Nitrogen Content (%)", pch=20, col=2)
```

b)

The scatterplot indicates a weak positive correlation between the depth of the permafrost sample and its nitrogen content. This implies that there’s a tendency for the nitrogen content to rise as the sample depth increases, though the data demonstrates considerable variability.

c)

```
cor(permaFrost$Soil_depth_cm, permaFrost$Ncontent_percentage_on_drymass)
> [1] -0.2472494
```

Given that the correlation coefficient is -0.2472494, this demonstrates a weak negative correlation. This means that as the depth of the permafrost sample increases, the nitrogen content slightly decreases. This somewhat contradicts the previous interpretation of a weak positive relationship from the scatterplot, suggesting that the data may have considerable variability or outliers that could be influencing these results.