

**NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR**

**Cachar, Assam**

**B.Tech. IV<sup>th</sup> Sem**

**Subject Code:** CS216

**Subject Name:** Applied Probability

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Branch : CSE – B

1. Write an R program to plot multiple time series using ggplot2 data visualisation package.

→ **Steps:**

- i. **Install 'ggplot2' package and load it.**

```
> install.packages ("ggplot2")
> library (ggplot2)
```

- ii. **Create multiple time series using data.frame function to store x and y data in each time series.**

#Creating first time series

```
> x1 <- 1:10
> y1 <- rnorm(10)
> time1 <- data.frame(x1, y1)
```

#Creating second time series

```
> x2 <- 1:10
> y2 <- rnorm(10)
> time2 <- data.frame(x2, y2)
```

#Creating third time series

```
> x3 <- 1:10
> y3 <- rnorm(10)
> time3 <- data.frame(x3, y3)
```

- iii. **Plot the created three time series using ggplot function and geom\_line function.**

```
> ggplot (time1, aes(x1, y1)) + geom_line (color = "red") + geom_line (aes(x2,
y2), color = "blue") + geom_line (aes(x3, y3), color = "green") + xlab ("Time")
+ ylab ("Rate")
```

