## **DA-2-FDA-16-10-22**

Suppose you have the following dataset

| Registration<br>Number | Study<br>Time in | Attendance in % | CGPA |
|------------------------|------------------|-----------------|------|
|                        | Hrs              | 100             |      |
| 1                      | 4                | 100             | 6.2  |
| 2                      | 6                | 50              | 5.3  |
| 3                      | 16               | 95              | 9.9  |
| 4                      | 12               | 85              | 9.0  |
| 5                      | 18               | 100             | 10.0 |
| 6                      | 2                | 50              | 4.0  |
| 7                      | 5                | 70              | 6.9  |
| 8                      | 9                | 80              | 7.7  |
| 9                      | 15               | 80              | 8.9  |
| 10                     | 3                | 75              | 6.5  |
| 11                     | 7                | 7.5             | 8.0  |

The above table shows the marks obtained by students based on their study hours and attendance in the class.

- a) Derived the multiple regression equation to predict CGPA based on study Time and Attendance.
- b) Apply multiple regression to predict the CGPA of a student if he has 78% attendance and 8hr Study time.
- c) Finally write an R script to perform the multiple regression and predict the CGPA of the student as per the condition given in bit (b).
- d) Interpret the results and various statistics measures obtained after executing the script and attach the outputs.