## 2 SUPPORT VECTOR MACHINE

| S.No | HYPER PARAMETER | R value                  |                           |                           |                          |
|------|-----------------|--------------------------|---------------------------|---------------------------|--------------------------|
|      |                 | LINEAR                   | RBF                       | POLY                      | SIGMOID                  |
| 1    | C10             | -0.0396449467<br>8192798 | -0.056807592<br>85862336  | -0.0536672051<br>2712608  | -0.054719583<br>32940319 |
| 2    | C100            | 0.1064681960<br>0577351  | -0.0507260227<br>8128757  | -0.0198021393<br>15272305 | -0.0304535148<br>6430925 |
| 3    | C500            | 0.5928977271<br>145746   | -0.024323348<br>197438532 | 0.1146848074<br>2657639   | 0.0705721448<br>9673913  |
| 4    | C1000           | 0.7802839882<br>154126   | 0.0067683444<br>800727965 | 0.2661637093<br>1646915   | 0.1850686197<br>4160804  |
| 5    | C2000           | 0.8767721687<br>716039   | 0.0675155427<br>0553017   | 0.4810028155<br>606567    | 0.3970652868<br>4272135  |
| 6    | C3000           | 0.8956744694<br>334916   | 0.1232275662<br>0227582   | 0.6370064223<br>754034    | 0.5913630209<br>426106   |

## 3 **DECISION TREE**

| S# | CRITERION     | MAX FEATURES | SPLITTER | R VALUE                  |
|----|---------------|--------------|----------|--------------------------|
| 1  | Squared error | Sqrt         | Best     | 0.5817421180944<br>019   |
| 2  | Squared error | Log2         | Best     | 0.7449804543230<br>634   |
| 3  | Squared error | None         | Best     | 0.9065144522007<br>736   |
| 4  | Squared error | None         | Random   | 0.9497624477192<br>392   |
| 5  | Squared error | Sqrt         | Random   | 0.7062557823562<br>274   |
| 6  | Squared error | Log2         | Random   | 0.7505122421426<br>654   |
| 7  | friedman_mse  | Log2         | Random   | -0.121380386808<br>81702 |

| 8  | friedman_mse   | Sqrt | Random | 0.1600723875264<br>216   |
|----|----------------|------|--------|--------------------------|
| 9  | friedman_mse   | Sqrt | best   | -0.168616849844<br>62677 |
| 10 | friedman_mse   | Log2 | best   | 0.5831945649698<br>247   |
| 11 | friedman_mse   | None | best   | 0.9272698361055<br>004   |
| 12 | friedman_mse   | None | Random | 0.9335288613733<br>013   |
| 13 | absolute_error | None | random | 0.7415637749300<br>867   |
| 14 | absolute_error | None | Best   | 0.9427654932844<br>562   |
| 15 | absolute_error | Sqrt | best   | 0.5995505549605<br>871   |
| 16 | absolute_error | Log2 | Best   | 0.8678272572246<br>77    |
| 17 | absolute_error | Log2 | random | 0.6494923103278<br>887   |
| 18 | absolute_error | Sqrt | random | 0.3877007509297<br>3966  |
| 19 | Poisson        | Sqrt | random | 0.6068550895985<br>401   |
| 20 | Poisson        | Log2 | Random | 0.3454143680751<br>919   |
| 21 | Poisson        | Log2 | Best   | 0.5704015273891<br>434   |
| 22 | Poisson        | None | Best   | 0.9305872232646<br>296   |
| 23 | Poisson        | None | Random | 0.8809567061057<br>26    |