

```
rainforecasts <- HoltWinters(raintimeseries)
rainforecasts
```

```
Holt-Winters exponential smoothing with trend and additive seasonal
component.
```

```
Call:
HoltWinters(x = raintimeseries)
```

```
Smoothing parameters:
```

```
alpha: 0.001826
beta : 0.422
gamma: 0.3554
```

```
Coefficients:
```

```
      [,1]
a    267.1477
b      0.5062
s1   -208.3311
s2   -227.2503
s3   -194.1851
s4   -136.7234
s5    147.8871
s6    216.3476
s7    338.7154
s8    673.8567
s9    321.0458
s10   430.4775
s11  -130.6776
s12  -215.8636
```

**Figure 4.4:** The output of `HoltWinters()` function.

(Coghlan 2011). A  $\beta$  of 0.422 and a low  $\gamma$  of 0.3554 meant that the estimate of both the trend and seasonal components at the current time point are based upon both recent observations and some observations in the more distant past. The graph of the original time series against the fitted forecast of the model can be seen in Figure (4.5).