WST311 2018: Memorandum for Assignment H (Part 1: Estimation)

Answers

a. $\widehat{\boldsymbol{\beta}} = \begin{pmatrix} 322.11098 \\ -1.54596 \\ -1.42456 \\ -2.23737 \end{pmatrix}$

s^2 = MSE = 5.34490

b. Unbiased estimate of $cov(\widehat{\boldsymbol{\beta}})$ is

```
                        covbhat
        349.42569 -1.811104 -1.670412 -0.109109
        -1.811104 0.0098079 0.0068077 -0.002303
        -1.670412 0.0068077 0.0218005 -0.009425
        -0.109109 -0.002303 -0.009425 0.1154798
```

c. R^2 = 0.9551
    R^2(adjusted) = 0.9462

d.
```
             bhat
          964.92906
          -7.442128
           -11.5077
          -2.140127
          0.0124571
          0.0332188
          -0.294014
           0.053507
            0.03804
          -0.101633
```

e. R^2 = 0.9741
    R^2(adjusted) = 0.9483