PART II

(1)

(a)

Original model:

(1.1)

To calculate , substitute , thus getting:

(1.2)

where the estimated future error , and historical errors are obtained by calculating their deviation from their most recent estimates, i.e.,

(1.3)

Similarly,

(1.4)

(1.5)

(b) .

Substitute n = 100 into (1.3), thus getting

Substitute n = 100 into (1.4), thus getting

Substitute n = 100 into (1.5), thus getting

Substitute n = 101 into (1.3), thus getting

(2)

Original model:

(2.1)

(2.2)

Data input gives

Historical error is the deviation between actual data and its estimate, therefore,

Forecasts and :