HS-302

End-Semester Quiz

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1) False

The sign of adjustment factor is '-ve'. This is because past error, deviation in equilibrium are inversely related

2) False

Two stationary variables when performed linear combination can result in stationary outcome

∴ 2 stationary / 2 non-stationary are possible

3) True

If the series has a stable long run trend and tends to revert to the trend line following a disturbance, it may be possible to stationarize it by de trending

4) True

RMSE, R^2 determines the accuracy of the model. But $R^2 \to 1$ and RMSE $\to 0$ indicates a good model.

while R^2 RMSE ↓ses R^2 ↑ses ($R^2 = \frac{ESS}{TSS}$,

Hence inversely related $RMSE = \sum_{i=1}^{n} \frac{\sqrt{(y - \hat{y}}}{N}$

5) False

Unconditional variance : $\frac{\sigma^2}{1 - a_1^2}$

Conditional Variance $= \sigma^2$

Uncondition Variance > Conditional Varian

as $a_1 \neq 0$ (For Time series analysis

6) Non-Linear Trend, Cycle

7) Partial Auto Correlation Function

8) The dependency of Time Series variables with the ~~lags~~ lags of errors volatilities

9) Tendency for volatility to decrease with increase in returns

10) 0.5

(As $PACF_1$, ACF_1 of AR(1) process are equal)