ICS Part 2 Statistics Chapter 16 Online Test

Sr	Questions	Answers Choice
1	The elimination or addition of a few more time periods may change its	A. speed B. value C. direction D. none of these
2	Methods of semi-averages gives an	A. accurate result B. objective result C. authentic result D. none of these
3	The least squares estimates are unbiased estimates of the	A. statistic B. time series C. parameters D. variance
4	The sum of deviations=$\Sigma(y-\hat{y})$ =	A. 0 B. 1 C. 10 D. -1
5	For a least squares linear trend $\hat{y} = a + bx$, the $\Sigma(y-\hat{y})^2 = 0$ when	A. all the y-values lie on the line B. all the y-values are positive C. all the y-+values lie above the line D. none of these
6	In the measurement of secular trend the moving averages:	A. Give the trend in a straight line B. Measure the seasonal variations C. Smooth out a time series D. None of these
7	The straight line is fitted to a time series when the movements in the time series are	A. linear B. quadratic C. cubic D. constant
8	For a least squares linear trend $Y = a + bx$, the $\Sigma(Y - Y)^2 = 0$ when:	A. All the Y-values are positive B. All the Y-values lie on the line C. All the Y-values lie above the line D. None of these
9	For a least squares linear trend=$\hat{y} = a + b\ x$,	A. Σy <$\Sigma\hat{y}$ B. $\Sigma\hat{y} = 0$ C. $\Sigma y = \Sigma\hat{y}$ D. none of these
10	Increase the number of patients in the hospital due to heel stock is:	A. Seasonal trend B. Secular trend C. Cyclical movements D. Irregular variation
11	The multiplicative time series model is:	A. $Y = T + S + C + I$ B. TSCI C. $Y = a + bX$ D. $Y = a + bX + cX^2$
12	The systematic components of time series which follow regular pattern of variations are called:	A. Noise B. Signal C. Additive model D. Multiplicative model
13	The equation of the quadratic (parabolic) trend is	A. $\hat{y}=a+bx$ B. $\hat{y}=a+by$ C. $\hat{y}=a+b\Sigma x+c\Sigma x^2$ D. $\hat{y}=a+bx+cx^2$
14	In the measurement of secular trend the moving averages	A. give the trend in a straight line B. measure the seasonal variations C. smoothes out a time series D. measure irregular fluctuations
15	$\hat{y}=a+bx$, this line will be called least squares line if it makes=$\Sigma(y-a-bx)2$	A. maximum B. constant C. minimum D. variable

16	Which one is a rough and crude method for measuring secular trend ?	A. free hand curve method B. semi average method C. moving averages method D. least square method
17	A business cycle has	A. one phase B. two phases C. three phases D. four phases
18	For a least squares linear trend=ŷ = a + bx, b is the	A. variable B. intercept C. trend D. slope
19	In a straight line equation Y = a + bX; a is the:	A. X - intercept B. Slope C. Y- intercept D. None of them
20	Sum of squares of residuals is denoted by	A. $\sum e$ B. $\sum e^2$ C. $\sum e^3$ D. $\sum e^4$