ICS Part 2 Statistics Chapter 16 Online Test

Sr	Questions	Answers Choice
1	The graph of a time series is called	A. histogram B. polygon C. straight line D. historigram
2	The secular trend is measured by the method of semi-averages when	A. time series contains yearly values B. trend is linear C. time series contains odd number of values D. none of these
3	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
4	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
5	The least squares estimates are unbiased estimates of the	A. statistic B. time series C. parameters D. variance
6	The elimination or addition of a few more time periods may change its	A. speed B. value C. direction D. none of these
7	Sum of squares of residuals is denoted by	A. ∑e B. ∑e² C. ∑e³ D. ∑e⁴
8	The method of least square gives too much weight to extremely large deviations from the	A. population B. parameter C. sample D. trend
9	Methods of semi-averages gives an	A. accurate result B. objective result C. authentic result D. none of these
10	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
11	A business cycle has	A. one phase B. two phases C. three phases D. four phases
12	For a least squares linear trend=$\hat{y} = a + bx$, b is the	A. variable B. intercept C. trend D. slope
13	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
14	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

15	The equation of the quadratic (parabolic) trend is	A. ŷ=a+bx B. ŷ=a+by C. ŷ=a+bΣx+cΣx² D. ŷ=a+bx+cx²
16	ŷ=a+bx, this line will be called least squares line if it makes=Σ(y-a-bx)2	A. maximum B. constant C. minimum D. variable
17	The sum of deviations=Σ(y-ŷ) =	A. 0 B. 1 C. 10 D. -1
18	The graph of time series is called:	A. Histogram B. Historigram C. Straight line D. Ogive
19	The basic components of a time series are:	A. 2 B. 3 C. 4 D. 5
20	The secular trend is measured by the method of semi-averages when:	A. Time series contains yearly value B. Trend is linear C. Time series contains odd number of values D. None of them
21	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
22	The unsystematic sequence which follows irregular pattern of variations is called:	A. Noise B. Signal C. Linear D. Non-linear
23	In time series seasonal variations can occur within a period of:	A. Nine years B. Four Years C. Three years D. One year
24	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
25	The systematic components of time series which follow regular pattern of variations are called:	A. Noise B. Signal C. Additive model D. Multiplicative model
26	In a straight line equation Y = a + bX; a is the:	A. X - intercept B. Slope C. Y- intercept D. None of them
27	For a least squares line trend Y = a + bx, the b is the:	A. Intercept B. Slope C. Variable D. Trend
28	For a least squares linear trend Y = a + bX	A. ΣY = ΣY B. ΣY = 0 C. ΣY > ΣY D. None of them
29	The rise and fall of a time series periods longer than one- year is called.	A. Secular trend B. Seasonal variation C. Cyclical variation D. Irregular variation
30	The multiplicative time series model is:	A. Y = T + S + C + I B. TSCI C. Y = a + bX D. Y = a + bX + cX²
31	The trend values in freehand curve method are obtained by:	A. Equation of straight line B. Second degree parabola C. Signal D. Graph
		A. Y = T + S + C + I B. TSCI

32	The additive model of the time series is:	C. Y = a + bX D. Y = a + bX + cX²
33	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
34	In moving average method, we cannot find the trend values of some:	A. Middle periods B. End periods C. Starting periods D. Between extreme periods