

## ICS Part 2 Statistics Chapter 16 Online Test

Sr	Questions	Answers Choice
1	The unsystematic sequence which follows irregular pattern of variations is called:	A. Noise B. Signal C. Linear D. Non-linear
2	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
3	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
4	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
5	The method of least square gives too much weight to extremely large deviations from the	A. population B. parameter C. sample D. trend
6	Sum of squares of residuals is denoted by	A. $\sum  e_i ^2$ B. $\sum  e_i ^3$ C. $\sum  e_i ^4$ D. $\sum  e_i ^2$
7	For a least squares linear trend $Y = a + bx$ , the $\sum (Y - \hat{Y})^2 = 0$ 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
8	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
9	For a least squares linear trend $\hat{Y} = a + bx$ , b is the	A. variable B. intercept C. trend D. slope
10	The least squares estimates are unbiased estimates of the	A. statistic B. time series C. parameters D. variance
11	The graph of a time series is called	A. histogram B. polygon C. straight line D. histogram
12	The additive model of the time series is:	A. $Y = T + S + C + I$ B. TSCI C. $Y = a + bX$ D. $Y = a + bX + cX^2$
13	For a least squares linear trend $Y = a + bX$	A. $\sum Y = \sum Y$ B. $\sum Y = 0$ C. $\sum Y > \sum Y$ D. None of them
14	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

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- 15 A business cycle has  
A. one phase  
B. two phases  
C. three phases  
D. four phases
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- 16 The multiplicative time series model is:  
A.  $Y = T + S + C + I$   
B. TSCI  
C.  $Y = a + bX$   
D.  $Y = a + bX + cX^2$
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- 17 The sum of deviations =  $\sum(y - \hat{y})$  =  
A. 0  
B. 1  
C. 10  
D. -1
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- 18 The basic components of a time series are:  
A. 2  
B. 3  
C. 4  
D. 5
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- 19 For a least squares line trend  $Y = a + bx$ , the b is the:  
A. Intercept  
B. Slope  
C. Variable  
D. Trend
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- 20 The elimination or addition of a few more time periods may change its  
A. speed  
B. value  
C. direction  
D. none of these
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