# ICS Part 2 Statistics Chapter 16 Online Test

| Sr | Questions | Answers Choice |
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| 1 | The secular trend is measured by the method of semi-averages when: | A. Time series contains yearly value<br>B. Trend is linear<br>C. Time series contains odd number of values<br>D. None of them |
| 2 | ŷ=a+bx, this line will be called least squares line if it makes=Σ(y-a-bx)2 | A. maximum<br>B. constant<br>C. minimum<br>D. variable |
| 3 | In the measurement of secular trend the moving averages: | A. Give the trend in a straight line<br>B. Measure the seasonal variations<br>C. Smooth out a time series<br>D. None of these |
| 4 | For a least squares linear trend=ŷ = a + bx, b is the | A. variable<br>B. intercept<br>C. trend<br>D. slope |
| 5 | The systematic components of time series which follow regular pattern of variations are called: | A. Noise<br>B. Signal<br>C. Additive model<br>D. Multiplicative model |
| 6 | The sum of deviations=Σ(y-ŷ) = | A. 0<br>B. 1<br>C. 10<br>D. -1 |
| 7 | In the measurement of secular trend the moving averages | A. give the trend in a straight line<br>B. measure the seasonal variations<br>C. smoothes out a time series<br>D. measure irregular fluctuations |
| 8 | The additive model of the time series is: | A. Y = T + S + C + I<br>B. TSCI<br>C. Y = a + bX<br>D. Y = a + bX + cX<sup>2</sup> |
| 9 | Which one is a rough and crude method for measuring secular trend ? | A. free hand curve method<br>B. semi average method<br>C. moving averages method<br>D. least square method |
| 10 | The elimination or addition of a few more time periods may change its | A. speed<br>B. value<br>C. direction<br>D. none of these |
| 11 | Increase the number of patients in the hospital due to heel stock is: | A. Seasonal trend<br>B. Secular trend<br>C. Cyclical movements<br>D. Irregular variation |
| 12 | The rise and fall of a time series periods longer than one- year is called. | A. Secular trend<br>B. Seasonal variation<br>C. Cyclical variation<br>D. Irregular variation |
| 13 | The unsystematic sequence which follows irregular pattern of variations is called: | A. Noise<br>B. Signal<br>C. Linear<br>D. Non-linear |
| 14 | The method of least square gives too much weight to extremely large deviations from the | A. population<br>B. parameter<br>C. sample<br>D. trend |
| 15 | The equation of the quadratic (parabolic) trend is | A. ŷ=a+bx<br>B. ŷ=a+by<br>C. ŷ=a+bΣx+cΣx<sup>2</sup> |

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| | | D. y=a+bx+cx<sup>2</sup> |
| 16 | For a least squares linear trend Y = a + bx, the $\Sigma(Y - Y)^2 = 0$ when: | A. All the Y-values are positive<br>B. All the Y-values lie on the line<br>C. All the Y-values lie above the line<br>D. None of these |
| 17 | The trend values in freehand curve method are obtained by: | A. Equation of straight line<br>B. Second degree parabola<br>C. Signal<br>D. Graph |
| 18 | The straight line is fitted to a time series when the movements in the time series are | A. linear<br>B. quadratic<br>C. cubic<br>D. constant |
| 19 | The basic components of a time series are: | A. 2<br>B. 3<br>C. 4<br>D. 5 |
| 20 | The multiplicative time series model is: | A. Y = T + S + C + I<br>B. TSCI<br>C. Y = a + bX<br>D. Y = a + bX + cX<sup>2</sup> |