**THREE YEAR B.A./B.Sc DEGREE EXAMINATION**
**STATISTICS(WM)**
**(W.E.F 2020-21 ADMITTED BATCH)**
**SEMESTER –IV**

**PAPER 5: APPLIED STATISTICS**

Time: 3 Hours                                                                                Max. Marks : 75

SECTION – A

Answer any <u>FIVE</u> Questions :-                                          5 X 5 = 25 M

1.   Define Time Series. Mention different Models of Time Series data.
2.   Describe Linear Trend by the method of Least Squares
3.   what are Seasonal Variations
4.   Explain simple averages method to determine the Seasonal Indices
5.   Define Gompertz Curve and mention two methods to fit the curve.
6.   Explain the method of Three Selected Points to fit Modified Exponential curve
7.   Define Laspayer's, Pasche's, Fisher's Index numbers
8.   Cost of Living Index number
9.   What are the Sources of Vital Statistics
10.  What are the components of a Life Table.

SECTION – B

Answer any <u>FIVE</u> questions                                          5 X 10 = 50 M

11.  Explain the Components of Time Series
12.  Describe the Method of Moving Averages. Also determine Trend values for the following data by taking 3 as moving period

| Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------|------|------|------|------|------|------|------|
| production | 30 | 45 | 65 | 79 | 100 | 120 | 150 |

13.  Describe Link Relatives Method to determine Seasonal Indices.
14.  Explain Ratio to Trend method to find Seasonal Indices
15.  How to Fit Modified Exponential curve using Partial sums method.
16.  Explain the method of Three Selected Points to fit Logistic Curve
17.  What are the problems involved in the construction of Index Numbers
18.  what are the Properties of a Good Index Number
19.  Explain various Mortality Rates
20. Discuss various Fertility rates.