

**S.S.M.S**

**S.B.B Alias Appasaheb Jedhe Art's, Commerce & Science College**

**B.Sc Computer Science Department**

**F.Y.B.Sc (Computer Science) Internal Examination, Feb-2017**

**Time duration: 1 hour**

**Sub: Statistical Methods-I**

**Marks: 20**

**( Attempt any 5 questions of the following questions)**

**Q1. Define correlation and find correlation coefficient for the following data** **Marks 04**

<b>X</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>9</b>
<b>Y</b>	<b>9</b>	<b>5</b>	<b>8</b>	<b>8</b>	<b>12</b>

**Q2. Derive the equation of line of regression of Y on X .** **Marks 04**

**Q3. Explain the procedure of fitting of second degree curve  $y = a + bx + cx^2$**  **Marks 04**

**Q4 Fit a curve of the type  $y = a.b^x$  for the following data** **Marks 04**

<b>Year (X)</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
<b>Productions (Y)</b>	<b>10</b>	<b>40</b>	<b>135</b>	<b>320</b>	<b>480</b>

**Q5. For 10 observations on price (X) and supply (Y) of a commodity, the following data was obtained:  $\Sigma X=130$ ,  $\Sigma Y=220$ ,  $\Sigma X^2=2288$ ,  $\Sigma Y^2=5506$ ,  $\Sigma XY=3467$ . Find the value of correlation coefficient. Also obtain the equation of regression line of price on supply** **Marks 04**

**Q6. State the type of correlation for the following :** **Marks 04**

- i) Supply and price of vegetables      ii) Weight and blood pressure of person  
iii). Sale of ice-cream and day temperature. iv) Sale of woollen garments and temperature.

**Q7. What is scatter diagram? Explain following types with diagrams:** **Marks 04**

- i) Perfect negative correlation ii) Strong positive correlation