13. The following table gives age (X) in years of cars and annual maintenance cost (Y) (in hundred rupees).

X	:	1	3	5	7	9
Y	:	15	18	21	23	22

Estimate the maintenance cost for a 4-year-old car after finding regression equation.

Or

Discuss the applications of *t* and F test giving suitable illustrations. **11**

Subject Code—0705

P.G. Diploma in Industrial Safety Management EXAMINATION

(Batch 2009 to 2017)

SAFETY STATISTICS AND ACCIDENTS INSPECTION

PGDISM-05

Time : 3 *Hours* *Maximum Marks :* 70

Section A

Note : Attempt any *Seven* questions. **7×5=35**

1. How is frequency distribution formed ?

2. Explain limitations of Statistics.

3. What is the need of safety check list ?

4. What are the properties of Binomial Distribution ?

5. What are the properties of Normal Distribution ?

6. Discuss about different modes of inspection.

7. Explain the concept of '*c*' charts.

8. What is rank correlation coefficient ?

9. Discuss the multiplication law of probability.

10. Discuss the concept of parameter and statistic.

Section B

Note : Attempt all the questions.

11. How do you fit a regression equation to a set of bivariate data ? Explain, How is correlation analysis different from regression analysis ?

Or

Discuss about various accident investigation and reporting techniques. **12**

12. Discuss the various methods of control charts.

Or

With the following data in 6 cities, calculate the coefficient of correlation by Karl Pearson's method between the density of population and the death rate :

Cities	**Area in Square miles**	**Population in '000**	**No. of deaths**
A	150	30	300
B	180	90	1440
C	100	40	560
D	60	42	840
E	120	72	1224
F	80	24	312

12