**SAINTGITS COLLEGE OF APPLIED SCIENCES, PATHAMUTTOM P.O, KOTTAYAM**

**FIRST INTERNAL EXAM [JANUARY 2017]**

**BA– SECOND SEMESTER**

**Elementary statistics for economics-11**

Time: 2 hours maximum: 50 Marks

**Section A**

Answer***all*** *questions. Each question carries* ***1 mark****.*

*Define the following*

1. Sample design
2. Statistical unit
3. Primary data.
4. Linear correlation.
5. Probable error. (5x1=5)

 PART B

Answer any **five** questions. Each question carries **2 marks**

1. Characteristics of good sampling.

 7. Define Scatter diagram.

8. Degree of correlation.

9 Functions of statistcs.

10 If r= 0.6 and n=64 find probable error and standard error.

1. Properties of correlation coefficient.

 (5x2=10)

 **PART C**

**Answer any 5 questions. Each question carries 4 marks.**

12) Find the coefficient of correlation by karl pearsons method.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | 12 | 20 | 15 | 22 | 18 | 24 | 20 | 12 | 15 | 22 |
| Y | 30 | 35 | 28 | 36 | 29 | 39 | 30 | 25 | 30 | 38 |

13) Explain probability based and non probability based sampling techniques.

14) Functions of C.S.O.

15) Explain Kinds of correlation.

16) Advantages and disadvantages of census method.

17)The coefficient of rank correlation of the marks obtained by 10 students in statistics and accountancy was 0.2.It was later discovered that the difference in ranks in the two subjects of one of the students was wrongly taken as 7 instead of 9.Find the correct result. (5x4=20)

 **PART D**

**Answer any 1 questions, each carries 15 marks.**

18) Obtain the rank correlation coefficient for the following data

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | 68 | 64 | 75 | 50 | 64 | 80 | 75 | 40 | 55 | 64 |
| y | 62 | 58 | 68 | 45 | 81 | 60 | 68 | 48 | 50 | 70 |

19) Find the coefficient of correlation between age and playing habit of the following students.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| age | 14.5-15.5 | 15.5-16.5 | 16.5-17.5 | 17.5-18.5 | 18.5-19.5 | 19.5-20.5 |
| No of students | 250 | 200 | 150 | 120 | 100 | 80 |
| Regular players | 200 | 150 | 90 | 48 | 30 | 12 |

 (15x1=15)