

**MA SOCIOLOGY**  
**Third Semester**  
**Statistical Analysis and Computer Application**  
**(MSO - 13)**

**Duration: 1hr.30 min.**

**Full Marks: 35**

**Part-A (Objective) =10**  
**Part-B (Descriptive)=25**

**(PART-B: Descriptive)**

**Duration: 1 hr.20 mins.**

**Marks: 25**

**1. Answer *any four* of the following questions:**

**5×4 = 20**

- a) What are the different computer generations? Explain the major features of every generation?
- b) Explain the anatomy of computer along with the organizational diagram and description of every unit.
- c) What do you mean by test of Significance? What is null and alternative hypothesis?
- d) Give the idea of sampling distribution of a statistic and a standard error of a statistic.
- e) Discuss about the different types of diagrammatic representation of data.
- f) Define
  - i) Null hypothesis
  - ii) Alternative hypothesis
  - iii) Level of significance

2. The marks obtained by 10 students in Mathematics and Statistics are given below. Find the coefficient of correlation and lines of regression between marks in the two subjects.

5

Roll No.	Marks in Maths (x)	Marks in Statistics (y)
1	75	85
2	30	45
3	60	54
4	80	91
5	53	58
6	35	63
7	15	35
8	40	43
9	38	45
10	48	44

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*(The figures in the margin indicate full marks for the questions)*

**Duration: 10 minutes**

**Marks – 10**

**PART A- Objective Type**

**I. Choose the correct options from the following:**

**1×10 = 10**

1. The value of correlation coefficient lies between  
a) 0 & 1                      b) -1 & +1                      c)  $-\infty$  to  $+\infty$                       d) 0 to  $\infty$
2. Rejecting a null hypothesis  $H_0$  when it is true is known as  
a) Type I error                      b) Type II error                      c) Standard error                      d) None
3. 95% confidence coefficient means  
a) 5% level of significance                      b) 95% level of acceptance  
c) Both of these                      d) None
4. The characteristic of a sample is known as  
a) Statistic                      b) Parameter                      c) Standard Error                      d) None of these
5. The test of significance for a large sample can be tested by  
a) Chi-square test                      b) F - test                      c) t – test                      d) None of these
6. By whom was the Correlation coefficient given?  
a) Blaise Pascal                      b) Karl Pearson                      c) Laplace                      d) None of them
7. Age of applicants while availing a life insurance and the premium of insurance is  
a) Zero correlation                      b) positively correlated                      c) negatively correlated                      d) None of these
8. Second generation computers were manufactured using which technology?  
a) Vacuum tubes                      b) Transistors                      c) CS                      d) None of these

9. Which of the following is an input device?

- a) LCD monitor                      b) Plasma monitor                      c) Inkjet printer                      d) Scanner

10. What is the shortcut key to copy a file?

- a) Ctrl + S                      b) Ctrl + Y                      c) Ctrl + X                      d) Ctrl + C

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