

**ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD**  
*(Dept. of Sociology, Social Work & Pop. Studies)*

**Course: Social Statistics (4689)**  
**Level: M.Sc.**

**Semester: Autumn, 2012**

Dear students,

1. The course carries two assignments carrying 100 marks each.
2. Please write the assignments in your own words and do not copy from the books.
3. Typed assignments will not be accepted/evaluated.
4. Try to give examples from your own social settings.
5. Discuss the complex issues of the course with your tutor in the tutorial meetings.

**LIST OF CONTENTS**

This course comprises the following materials

1. Study guide/s (One)
2. Text books/ reader (One)
3. Assignments (Two)
4. Assignment forms (Two sets)
5. Time table for assignments and tutorials

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**WARNING**

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

**Course: Social Statistics (4689)**  
**Level: M. Sc. Sociology**

**Semester: Autumn, 2012**  
**Total Marks: 100**  
**Pass Marks: 40**

**ASSIGNMENT No. 1**  
**(Units: 1–4)**

- Q. 1 Define research process and give its different steps. Elaborate each step with the help of examples. (25)
- Q. 2 Differentiate among the following: (25)
- i) Parameter and statistics
  - ii) Quantitative and categorical variable
  - iii) Descriptive and Inferential statistics
  - iv) Experiment and sample survey
  - v) Ratio and proportion
- Q. 3 The following data gives the record of an insurance company investment over the years. Draw a bar diagram and a histogram to represent it. (25)
- |              |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|
| Year:        | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 |
| Rs (million) | 1010 | 2050 | 3458 | 1980 | 2300 | 1295 | 1520 | 1070 |
- Q. 4 The following data give the life time in minutes, recorded to the nearest tenth of a minute, of fifty sprayed insects. (25)
- |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.2 | 2.2 | 0.7 | 3.9 | 1.7 | 1.9 | 1.4 | 1.8 | 2.0 | 4.3 |
| 2.5 | 0.9 | 3.4 | 2.8 | 2.7 | 3.5 | 0.4 | 2.8 | 1.1 | 0.2 |
| 3.9 | 6.3 | 2.5 | 2.1 | 1.2 | 2.1 | 0.3 | 0.4 | 2.4 | 2.1 |
| 3.5 | 2.9 | 1.2 | 5.3 | 1.7 | 2.7 | 1.8 | 4.8 | 3.2 | 1.6 |
| 2.6 | 1.8 | 2.3 | 1.3 | 3.1 | 1.5 | 2.6 | 5.9 | 2.0 | 2.3 |
- Using 8 intervals with the lowest starting at 0.1 form a frequency distribution and a cumulative frequency distribution.

## ASSIGNMENT No.2

(Units: 5–8)

- Q. 1 Calculate the Geometric mean for ungrouped data. Following are the percentage changes in weights of eight boys. 45, 30, 35, 40, 44, 32, 42, 37 (25)
- Q. 2 Data 26 families in a locality are taken and the number of children per family are as follow: (25)
- |                     |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|
| Number of children: | 0 | 1 | 2 | 4 | 5 | 6 | 7 |
| Number of family:   | 5 | 6 | 3 | 6 | 3 | 2 | 1 |
- Find out the median for this discreet grouped data.
- Q. 3 What are different measures of variability? Briefly discuss most common measures of variability. (25)
- Q. 4 Toss a die and observe the number that appears on top. Let A be the event that an even number occurs B be the events that an odd number occurs and C be an event that a prime number occurs. (25)
- Find probability:
- i) A or B occurs
  - ii) A or C occurs
  - iii) B or C occurs

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