Ex/ED/3.22/28/2019(Old)

BACHELOR OF ARTS EXAMINATION, 2019

(2nd Year, 3rd Semester)

ECONOMICS

BASIC STATISTICS FOR SOCIAL SCIENCES

(EXTRA DEPARTMENTAL COURSE)

Time : Two hours   Full Marks : 30

Note: Attempt any three questions. Each question carries 10 marks. Extra, but relevant knowledge of the subject will be rewarded, whereas marks will be deducted for producing irrelevant/superfluous information. Programming calculator is not allowed.

Q. 1. (a) Distinguish between (i) census and sampling methods; (ii) parameter and statistic; and (iii) sampling and non-sampling errors. (b) Discuss the advantages of sampling over complete enumeration method. Also, bring out the main principles of sampling.

$$3+3.5+3.5=10$$

Q. 2. (a) What is frequency distribution? State the reasons for constructing a frequency distribution. Illustrate the difference between discrete and continuous frequency distribution. (b) When is it appropriate to use a Pie diagram to represent data? Draw a Pie diagram for the following data of production of sugar in quintals in various countries. $6+4=10$

Country	Cuba	Australia	India	Japan	Egypt
Production of Sugar (in quintals)	62	47	35	16	6

Q. 3. (a) Discuss the characteristics of an ideal measure of central tendency. (b) Calculate arithmetic mean, median and mode from the following data and verify Pearson's empirical relationship between these three measures of central tendency. $3+7=10$

Income (Rs.)	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Number of persons	24	42	56	66	108	130	154

Q. 4. Write short notes on any two of the following:

(i) Types of data.   5

(ii) Scope and limitations of Statistics.   5

(iii) Correlation vs Regression.   5