

M.A/M.Sc. Examination 2018
Semester-II
Anthropology
Paper VIII
(Statistics and Computer Application in Anthropology)

Time : 3 Hours

Full Marks : 40

Questions are of value as indicated in the margin

Answer Question No.6 and **any three** from the rest.

1. What is distribution? Calculate central tendency and SD of a hypothetical normal distribution. 3+4+3=10
2. What is non parametric test? The average blood pressure of 25 individuals who have been under treatments for weeks for drug 'Q' was summarized in the table below:
 Before treatment (mmHg): 145, 135, 165, 132, 122, 160, 155, 160, 135, 140, 130, 155, 155, 175, 140, 170, 180, 150, 160, 170, 130, 120, 150, 160, and 165
 After treatment (mmHg): 125, 115, 165, 130, 125, 160, 150, 165, 130, 110, 125, 165, 130, 150, 140, 155, 150, 160, 150, 140, 130, 180, 150, 140 and 160 Is the said drug effective? 2+8=10
3. What is *F* test? A biological anthropologist would like to determine if there is a relationship between the habit of smart phone watching and the use of bi-cycle. A total of 500 children are selected randomly. The observed frequencies are as follows: 2+8=10

Categories	Use of bi-cycle	No use of bi-cycle
Use of smart phone	70	170
No use of smart phone	160	100

Can the biological anthropologist conclude that there is a significant association between the habit of smart phone watching and the use of bi-cycle?

4. When do we use correlation? The local meteorological office has kept records of the demand of water supply and the daily temperature (⁰F) during the summer months. These data are as follows: 2+8=10
 Temperature (⁰F) : 88, 90, 80, 84, 98, 85, 86, 75, 82, 84, 94, and 95
 Water supply (in Gallon/day): 870, 1040, 840, 935, 1135, 1020, 870, 820, 960, 1020, 1010, and 1080.
 Is temperature (⁰F) related to daily water consumption during summer month?
5. Briefly discuss the available methods to measure heritability in man. What is variance? 8+2=10
6. Write short notes on **any two** of the following : 5+5=10
 - a) Qualitative vs. quantitative trait
 - b) Vital statistics
 - c) Hypothesis
 - d) CPU