

**M.A./M.Sc. Semester-IV Examination 2017**

**Anthropology**

**Paper : XXVIII (Group-B)**

**(Biostatistics)**

**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 normal distribution? The attack rates of pneumonia among individuals with and without tuberculosis virus (TV) are given in the table below. Is the tuberculosis predisposed individuals to pneumonia? 2+8=10

Group	Attacked	Not attacked
Person with TV	40	55
Person without TV	20	85

2. Differentiate quantitative from qualitative data. To evaluate the efficacy of calcium channel blocker drugs M, the mean arterial pressure of fifteen individuals was recorded after four hours of administered the drugs Y:

Without using M 120, 125, 116, 115, 112, 110, 108, 106, 100, 128, 135, 140, 120, 135, 140

Four hours of using M 110, 105, 112, 100, 110, 107, 113, 102, 120, 115, 118, 126, 140, 150, 160

3. The local municipality has kept records of the demand of water supply and the daily humidity during the summer months. These data are as follows: 10

Humidity (%): 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, 110, and 1080. Is humidity related to daily water consumption during summer month?

4. What is multiple logistic regression? In a survey, the amount of cadmium in parts per million (ppm) on the vegetation alongside eight roads were recorded. The amount of traffic (in hundreds of vehicles passing per day) was also recorded: 2+6+2=10

Road number	Cadmium	Traffic
1	44	079
2	58	109
3	43	104
4	25	124
5	50	121
6	30	070
7	23	080
8	42	120

5. What is sampling? Discuss with example the methods of drawing unbiased samples. 2+8=10

6. Write short notes on **any two** of the followings : 5+5=10

(a) Factor analysis (b) ANOVA (c) F test (d) Probability