



**Sri Lanka Institute of Information Technology**  
**Year 02 – Semester II – 2025**  
**Probability and Statistics – IT2110**  
**Tutorial 01**

1. Determine whether the following variables are categorical or quantitative.
  - a) Color of a randomly selected beetle
  - b) Birth weight
  - c) Hometown
  - d) Life of a battery measured in hours
2. State whether each of the following variables is quantitative (numerical) or qualitative (categorical). If quantitative, is it discrete or continuous? If qualitative, is it nominal or ordinal?
  - a) Number of donors at a blood drive.
  - b) Letter grade in a statistics class.
  - c) Air pressure in pounds per square inch in an automobile tire.
  - d) Method of payment (cash, check, debit card, credit card).
3. For each of the following variables indicate whether it is quantitative or qualitative and specify the measurement scale that is employed when taking measurements on each.
  - a) Admitting diagnosis of patients admitted to a mental health clinic
  - b) Weights of babies born in a hospital during a year
  - c) Gender of babies born in a hospital during a year
  - d) Range of motion of elbow joint of students enrolled in a university health sciences curriculum
  - e) Under-arm temperature of day-old infants born in a hospital
4. Indicate whether the following variables are categorical or quantitative:
  - a) Favorite food.
  - b) Favorite profession.
  - c) Number of goals scored by your favorite team last season.
  - d) Number of students at your school.

- e) The eye color of your classmates.
- f) IQ of your classmates

5. Indicate whether the following variables are discrete or continuous:

- a) Number stocks sold every day in the stock exchange.
- b) Hourly temperatures recorded at an observatory.
- c) Lifetime of a car.
- d) The diameter of the wheels of several cars.
- e) Number of children from 50 families.
- f) Annual Census of Americans.

6. Classify the following variables as categorical, quantitative, discrete or continuous:

- a) The nationality of a person.
- b) Number of liters of water contained in a tank.
- c) Number of books in a library shelf.
- d) Sum of points tallied from a set of dice.
- e) The profession of a person.
- f) The area of the different tiles on a building.