## **Introductory Statistics Tutorial Answers Chapter 1 – What is Statistics?**

- 1. (4)
- **2.** (3)
- **3.** (i) Study 1:

Treatment: The number of storeys from which the cat fell.

Response: Survival of the cat.

Study 2:

Treatment: The gender of the student.

Response: Clothing expenditure.

Study 3:

Treatment: The style of the commercial.

Response: Recall score.

- (ii) Study 1: An observational study. There is no allocation (by the researcher) of cats to the number of storeys of the fall. Results are simply observed for cases that happen.
  - Study 2: An observational study. There is no allocation (by the researcher) of subjects (the students) to the groups (male or female).
  - Study 3: An experiment. The researcher allocates which commercial is to be watched by each subject (shopper).
- (iii) It is not possible to do an experiment for study 1 due to ethical and moral considerations. To do an experiment a sample of cats would have to be allocated a height and then thrown out of a window at that height.

It is not possible to do an experiment for study 2 as the researcher cannot allocate a gender to a student.

- 4. (5)
- **5.** (3)
- **6.** (4)
- 7. (2)

